DELAWARE STATE MEDICAL JOURNAL

Official Organ of the Medical Society of Delaware

INCORPORATED 1789

VOLUME 27
NUMBER 6

JUNE, 1955

Per Year, $4.00
Per Copy, $ .50

CONTENTS

Entered as second-class matter June 28, 1929, at the Post Office at Wilmington, Delaware, under the Act of March 3, 1879. Editorial Office, 822 North American Building, Wilmington 7, Delaware. Business Office, Farnhurst, Delaware. Issued monthly.

normal living for.....

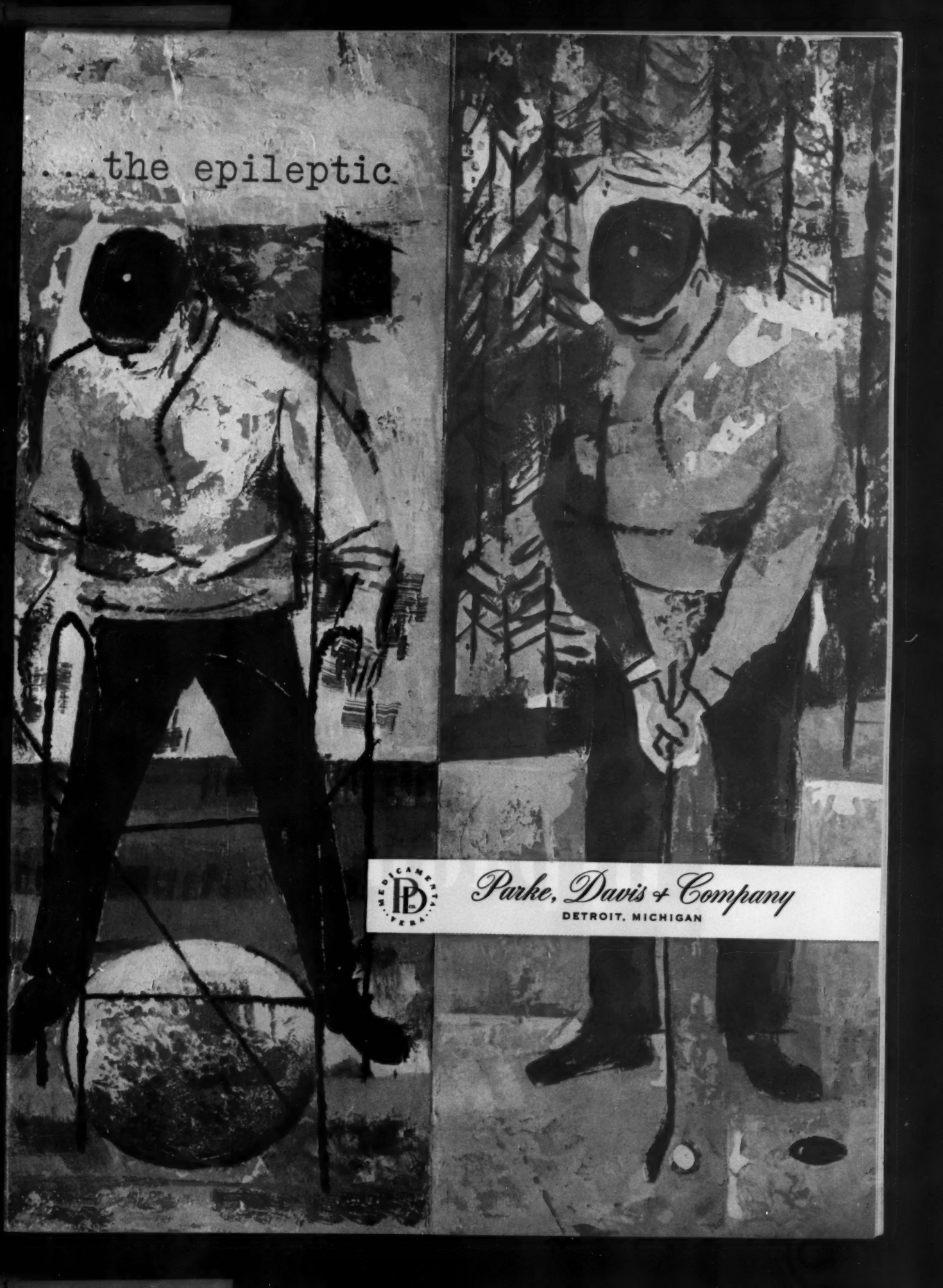
at work and at play

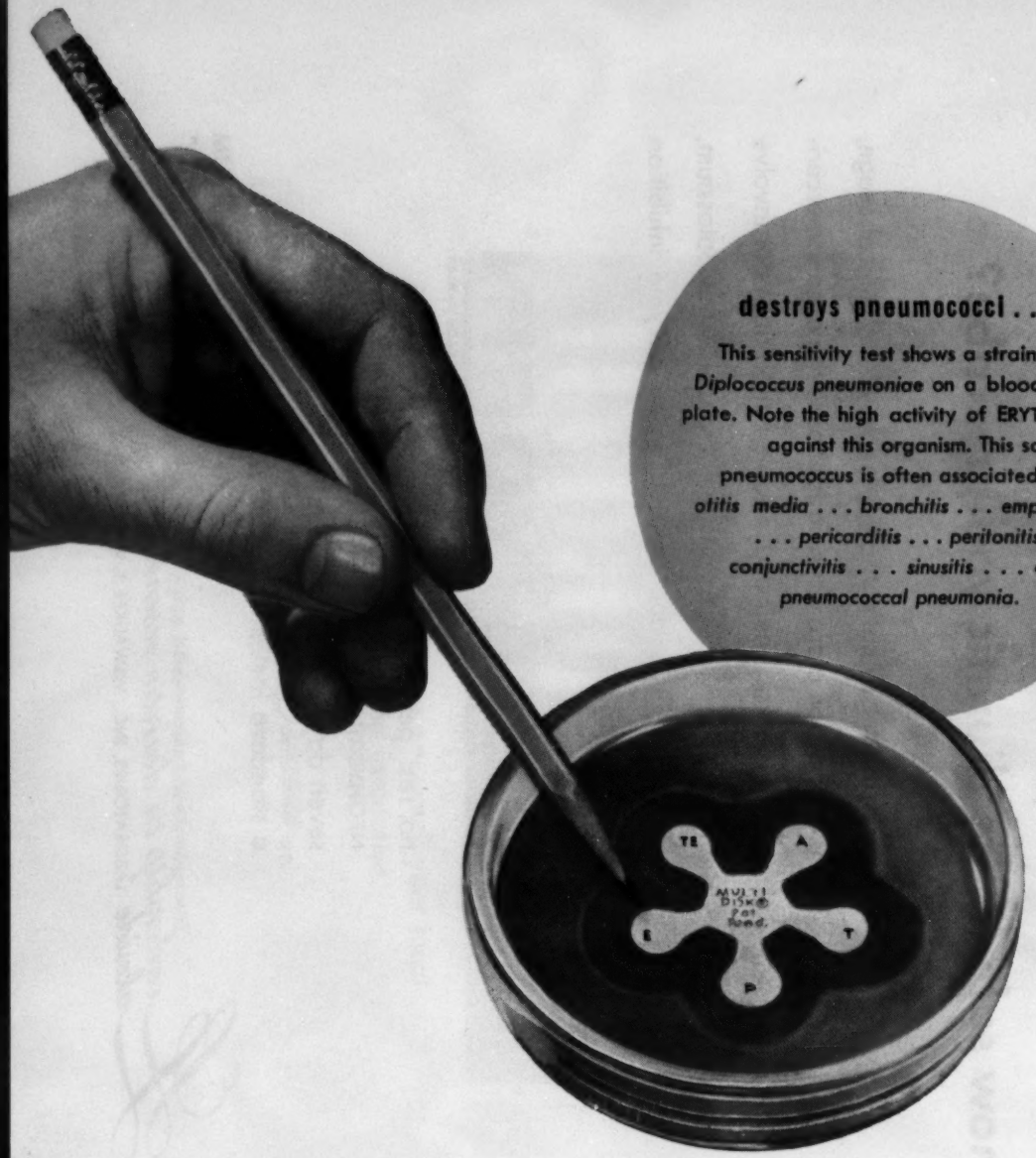
adults should be encouraged
to work...and every
effort should be made
to keep children in school.
With accurate diagnosis
and proper treatment,
the majority of epileptics,
like the diabetics, can carry
on a normal life.

DILANTIN® SODIUM (diphenylhydantoin sodium, Parke-Davis)

a mainstay in anticonvulsant
therapy, alone or in
combination, for control of
grand mal and psychomotor
seizures--
with the added advantages
of greater safety and of little
or no hypnotic effect.

DILANTIN Sodium is supplied in a variety of forms -- including Kapseals® of 0.03 Gm. (½ gr.) and 0.1 Gm. (1½ gr.) in bottles of 100 and 1,000.





destroys pneumococci . . .

This sensitivity test shows a strain of *Diplococcus pneumoniae* on a blood agar plate. Note the high activity of ERYTHROCIN against this organism. This same pneumococcus is often associated with *otitis media . . . bronchitis . . . empyema . . . pericarditis . . . peritonitis . . . conjunctivitis . . . sinusitis . . .* and *pneumococcal pneumonia.*

specific against coccic infections . . .

Now, you can prescribe an antibiotic (*Filmtab* ERYTHROCIN) that provides *specific therapy* against staph-, strep- or pneumococci. Since these organisms cause most bacterial respiratory infections (*and since they are the very organisms most sensitive to* ERYTHROCIN) doesn't it make good sense to prescribe ERYTHROCIN when the infection is coccic?

filmtab

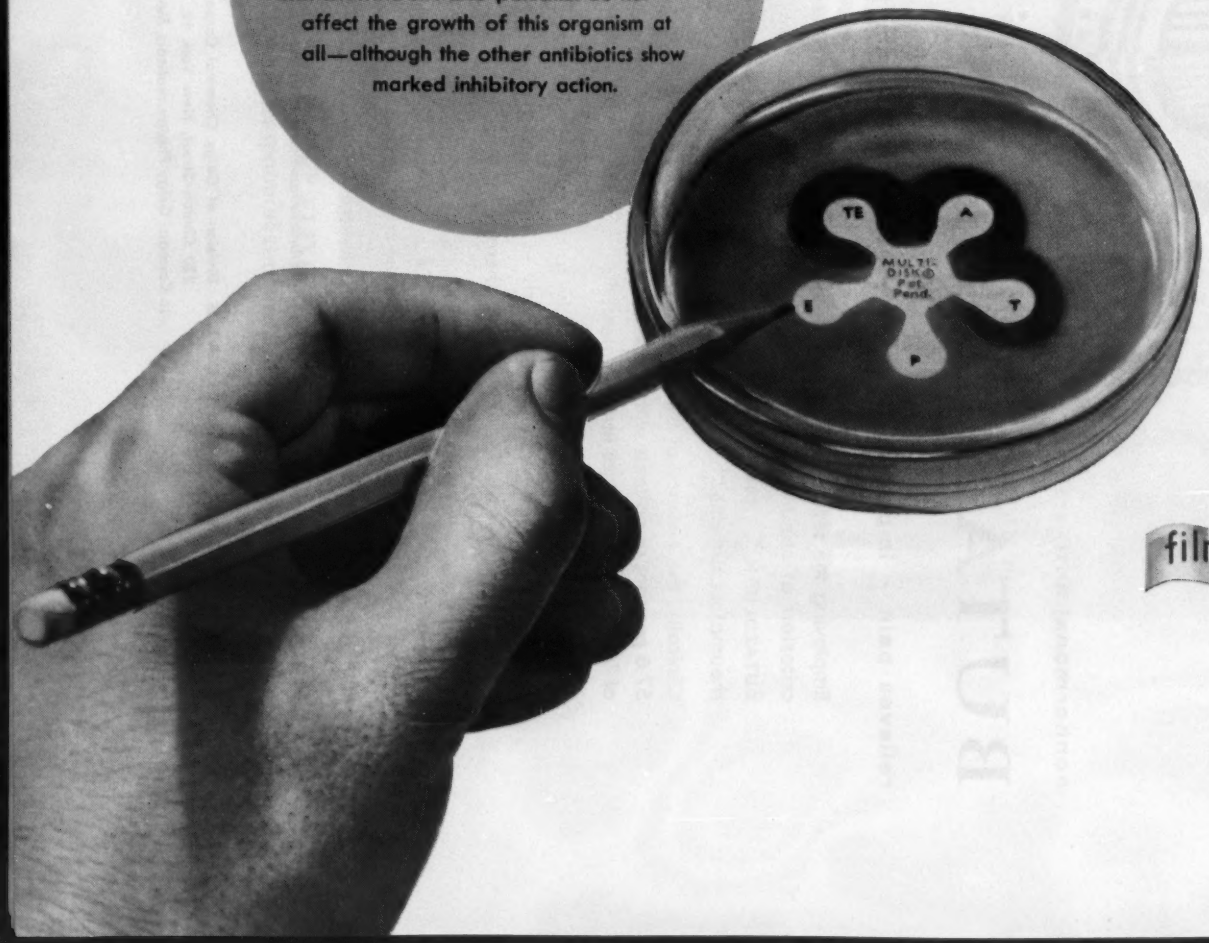
Erythrocin®

(Erythromycin Stearate, Abbott)

STEARATE

spares intestinal flora . . .

This sensitivity test shows ERYTHROCIN and the same four antibiotics against a typical intestinal strain of *E. coli*. Note that ERYTHROCIN and penicillin do not affect the growth of this organism at all—although the other antibiotics show marked inhibitory action.



. . . *with little risk of serious side effects*

Since ERYTHROCIN is inactive against gram-negative organisms, *it is less likely to alter intestinal flora—with an accompanying low incidence of side effects.* Also, your patients seldom get the allergic reactions sometimes seen with penicillin. Or loss of accessory vitamins during ERYTHROCIN therapy. *Filmtab* ERYTHROCIN (100 and 200 mg.) comes in bottles of 25 and 100 at pharmacies everywhere. Abbott

filmtab®

Erythrocin®

(Erythromycin Stearate, Abbott)

STEARATE

®Filmtab—Film sealed tablets; patent applied for

506157

In a planned search for more effective substances without undesirable actions, new crystalline corticosteroids have been discovered in Schering's research laboratories.

Possessing three to five times the therapeutic effectiveness of cortisone or hydrocortisone in rheumatoid arthritis and other so-called collagen diseases, intractable asthma and other allergies, and nephrosis, the first of these, METICORTEN* is less likely to produce undesirable side actions, particularly sodium retention and excessive potassium depletion. Patients treated with this new steroid exhibit less tendency to fluid retention, and sedimentation rate may be lowered even where other corticoids cease to be effective—"therapeutic escape." This new compound affords excellent relief of pain, swelling and tenderness, diminishes joint stiffness and is effective in small dosage.

METICORTEN, is available as 5 mg. scored tablets, bottles of 30. In the treatment of rheumatoid arthritis, dosage of METICORTEN begins with an average of 20 to 30 mg. (4 to 6 tablets) a day. This is gradually reduced by 2½ to 5 mg. until maintenance dosage of 5 to 20 mg. daily is reached, usually by the 14th day. The total 24-hour dose should be divided into 4 parts and administered *after meals and at bedtime*. Patients may be transferred directly from hydrocortisone or cortisone to METICORTEN without difficulty.

SCHERING CORPORATION • BLOOMFIELD, N. J.

SCHERING

*T.M. Schering

DELAWARE STATE MEDICAL JOURNAL

Issued Monthly Under the Supervision of the Publication Committee
Owned and Published by the Medical Society of Delaware

VOLUME 27
NUMBER 6

JUNE, 1955

Per Year, $4.00
Per Copy, $ .50

THE HUMAN ELEMENT IN ACCIDENTS*

KENNETH E. APPEL, M.D.,**
AND
ALBERT E. SCHEFLEN, M.D.,
Philadelphia, Pa.

There are few mornings that we can read the paper without a shudder over a photograph of a serious accident. Periodically we are appalled by statistics about the frequency of accidents. Yet few of us stop for any purposeful reflection and still fewer take constructive, organized measures. From time to time officials or citizens start safety campaigns in the face of a particularly disturbing series of local accidents. Long range planning, continued measures for correction, and deeper investigation into the causes of accidents is generally neglected. Possibly we deal with the matter so personally threatening like we do with other frightening realities such as mental hospitals or atom bombs—we prefer not to think about it.

The National Safety Council figures for 1953 reveal a startling socio-economic problem. Last year there were 95,000 deaths and 9,600,000 injuries due to accidents. The estimated cost was $9,700,000,000. Motor vehicle accidents account for 38,300 of these deaths. The importance of accidents to medical practice may not be appreciated. Accidents are the leading cause of deaths from the ages of one to 36 years. $700,000,000 was spent for hospital and medical fees for injuries in 1953. And the problem seems to be getting worse. The number of motor vehicle fatalities increased 21 per cent since 1949.

According to the National Safety Council figures the state of Delaware is quite justly concerning itself with this problem. The death rate due to accidents per 100,000 population was 77.1 for Delaware for 1953. This is the highest of any state east of the Mississippi and seventh for the nation. This figure also represents an increase of 30% above the accident death rate for 1952. No other state in the U. S. showed a yearly increase greater than 11%. In vehicle deaths the rate for Delaware was 31.4%, which is 8th in the nation. It is of interest that New Jersey showed the lowest rate of any state. It is also of interest that the duPont Company holds the record for days without injuries above all other industrial companies in the nation. In one duPont plant there were over 28,000,000 man hours without a reportable accident. The National Safety Council also offers figures on the causes of motor vehicle accidents — speeding was considered the cause in 30%, drinking in 24%, and unfavorable physical condition of the driver in 6%. Fatigue, poor eyesight, deafness, and illness were the principal reasons. According to a study at Iowa State College the highest automobile rate was in the age group from 19 to 29 years. A study made in Pennsylvania in 1951 revealed that in over 100,000 accidents *an unsafe act was identified in 94.9%*. These figures give us reason to inquire into the personal or human elements in accidents.

The medical, psychological factors which may play a role in the causation of accidents could be classified under five headings:

(1) medical or physiological disturbances; (2) neurologic conditions; (3) mental deficiency; (4) psychoses; (5) accident proneness or emotional patterns resulting in accidents without other evidence of devious mental illness.

Of the *medical or physiological states* unfavorable to safety, fatigue and the impairment of mental clarity due to drugs or alcohol appear to be the most important. Psychological factors are generally interwoven when the driver continues to operate an automobile when excessively tired or intoxicated. Occasionally drugs administered by a physician may impair an operator's efficiency. For example, before we were familiar with the side effects

*Read before the Medical Society of Delaware, Dover, October 13, 1954.
**Professor of Psychiatry, and Instructor in Psychiatry, respectively, University of Pennsylvania.

of benedryl we can recall patients who drove ineffectively while taking this drug. Other examples could be given. It is the physician's responsibility to warn the patient of the dangers of a treatment. The list of medical illnesses which could compromise a driver's efficiency would include all those which appear in a textbook of medicine. It seems worthwhile to mention a few of the somatic illnesses which are likely to impair cerebral circulation or predispose to unconsciousness. We have in mind arteriosclerosis, cardiac arhythmias, diabetes, illnesses associated with primary or secondary anemia, and febrile states. Impairment of any of the organs of sensation, especially the eyes and ears limits the person's ability to receive signals and endangers his efficiency.

Nearly all *diseases of the central nervous system* could make the patient an unsafe driver. One of the most common of these is epilepsy of any type. This is well known and most states have precautions against licensing epileptics. Of increasing importance are the senile and arteriosclerotic brain diseases of the older age groups. Cerebral pathology may not only destroy motor coordination and perception and predispose to attacks of unconsciousness but also may seriously impair judgment.

Marked grades of *mental deficiency*, regardless of cause, predispose to impaired judgment and unsafe driving. Many *psychotic patients* may also be unsuitable to operate motor vehicles. Various types of severe mental illness evidence such symptoms as homicidal and suicidal trends which may be put into operation on the highway, poor ability to concentrate and inattentiveness, impulsiveness, abnormal perception such as hallucinations which could produce judgmental errors while driving, and in general poor contact with the vicissitudes of the highway and of life in general.

Of even greater significance are the group of people without apparent mental illness or severe neurotic disturbance who are *prone to have repeated accidents*. It is from a study of this group that we can best elucidate the human factors and the cause of accidents. For these people, having an accident is the culmination of a series of social and psychological factors, and the accident is in itself a symptom of an emotional upset or disharmony with their environment.

What is the evidence for claiming that there is a type of person who is predisposed to frequent accidents? In the first place, there is statistical evidence. It can be shown that a person who has had a previous accident is significantly more likely to have another. There are several industrial studies which show that a small group of workers have most of the accidents. In 1928 one company which operates a large fleet of vehicles became concerned about the high cost of automobile accidents and their annual increase. They made a study of the accident rates of the drivers and shifted those men with the highest accident rates to other jobs. As a result of this the accident rate decreased to 1/5 the original rate, but it was soon observed that the drivers with the high accident rates now shifted to other jobs in the plant began to have personal injuries instead of traffic accidents. Such figures as these have led to the statement that 88 to 90% of all industrial accidents are personal, that is, are related to something in the personality of the individual.

Dr. Flanders Dunbar and her associates (from whom most of these statements are cited) did an extensive study in an attempt to determine what personality factors were involved.

In the second place we become aware of the accident-prone individual when we talk to patients who are under medical treatment as the result of accidents. Often they give us a history of repeated past accidents. One of us once saw in psychiatric consultation a young sailor who could remember twelve head injuries serious enough to render him unconscious. Also, these patients rather frequently tell us that their accident was related to some emotional upset or some unfavorable life situation. Lastly, we often see the connection between certain types of psychological forces and accidents during the

psychotherapy of patients who have come to us for other reasons. It seems very pertinent to examine the life situation and personality structures of people who have accidents.

Dunbar brought out common denominators in the histories of the accident patients she studied. They had a relative frequency of accidents in their families. They had relatively many divorces and few children. They described at least one strict parent. They tended to make up their minds definitely and quickly "focus on immediate values rather than long-range goals." They showed a tendency to appear casual about feelings and personal problems. These patients showed a tendency to use stimulants, coffee, cigarettes and alcohol for pleasure or to let off steam. They were very interested in competitive sports with bodily contact. As children they tended toward lying, stealing, truancy and sleepwalking, but in later life few of them had obvious neurotic traits. Psychologically they showed considerable conflict with authority.

The fracture patients studied by Dr. Dunbar showed a rather characteristic behavior pattern. Although covered by a certain defensive layer of casualness they had much conflict with authority. They tended to be either submissive or unduly aggressive toward it. They sought to become independent of authority and be autonomous rather than adjust to it. They tended to pride themselves on self-reliance, making up their minds quickly and rather impulsively. They seemed to need to be active and moving. They liked to take a chance. One said, "Adventure and excitement appeal to me." Others expressed the need to be on the run, do something about things in a hurry, to feel a need to keep moving. One said, "Mostly I do things on impulse." They showed a tendency to wander, to shift from one thing to another. In their educational histories it was noticed that they tended to begin some unit of education and fail to finish it. One type in particular had lively imaginations and were aggressive with relatively little control of their emotions. They had difficulty in concentrating and often felt frustrated and dissatisfied so that they had unstable work records and a general picture of irresponsibility. Some of them had a tendency for "impulsive, uncontrolled release of emotion."

It is important that quite characteristic of those patients was an interest in machinery. They liked to see it operate. They thought of machinery as "working up tension" or "driving like mad." They might like to drive and use automobiles to express themselves.

It was of considerable interest that most of these patients showed an exaggerated interest in their physical appearance and health. They tended to read about and talk about health and to take measures such as exercise, diet, etc., in order to "take good care of themselves". They tended to fear mutilation. At the same time they were very interested in bodily contact sports and in such activities as motorcycle riding which is dangerous and carries with it the danger of injury and deformity. This interest in avoiding injury, of course, seems paradoxical in view of the history of repeated accidents. From our knowledge of psychology this paradox can be explained by thinking of the concern about health and beauty as a defense against their own tendency toward self-injury and self-mutilation.

Dr. Dunbar also studied the *life situation of these people immediately prior to the accident.* Other studies have shown that the people who are accident-prone do not have poor coordination, low intelligence or slow reaction time. This is important and corrects a common fallacy. In 80-90% of Dunbar's patients, some specific worry in the life situation preceded the accident. These were not dramatic or spectacular things but ordinary everyday worries; important, however, because they stirred up or touched upon a specific conflict in these people. In each case the worry had to do with attitudes toward some authoritarian figures, such as parents, lawyer, priest, or domineering spouse. One patient had an accident while angry because the priest told her she could not

use contraceptives. Another patient wanted to get a job but was forced to remain home and take care of her father whom she hated. One patient working on Sunday morning fractured a vertebra. He was mad "because I couldn't refuse my boss".

In many of the patients the frequent accidents showed repetitive patterns. In some there was a tendency to repeatedly injure the same arm or leg. In others repeated injuries occurred under similar circumstances, connected in each case, for instance, with trolley cars or buses. Sometimes accidents occured repeatedly in similar traffic or topographical settings. These patterns reveal the impact of unconscious emotional conflicts recurring over and over.

One of the striking characteristics of the fracture patients studied by Dunbar is the reaction to illness. Shortly after the accident there was a great deal of guilt and resentment. The question they asked was, "What have I done to deserve this?" One patient fell down and injuring her knee said, "God brought me to my knees again just like my parents used to do". Some of them thought of their injuries as punishment for someone else and sometimes they used the injury to compel their parents or a spouse to do something they wanted. After the initial reaction of guilt and resentment the patient tended to go to the opposite extreme. They attested their innocence. They renounced responsibility for the accident. Sometimes the desire for compensation became thematic.

These are some of the general characteristics of a group of fracture patients which Dunbar studied. It is important to formulate these characteristics into a dynamic picture which relates the personality of the accident-prone individual to the occurrence of the accident. In reviewing the histories one was impressed with the fact that the people had been in trouble with authority most of their lives. First with parents, then with school, church, jobs and finally with wife or husband. They had tried to handle these conflicts by becoming autonomous and minimizing or avoiding conflicts with authority whenever they could. Instead of being unduly compliant and submissive or openly aggressive and attacking toward parents or parent surrogates they tried to get out of a situation and convince themselves and others that they were independent. They tried to handle things on their own. This tended to make them unaware of their own resentment and aggression toward authority. Part of their avoidance of the authoritarian conflict was to deny it, minimize it or make it unconscious. They then had a great deal of accumulated hostility or resentment which was poorly discharged and they were themselves generally unaware of the marked tension. They tended to take things lightly and put on an appearance of casualness about these problems. They tended to concentrate on concrete values and were not introspective, reflective, self-examining people. They were poor in expressing thoughts and feelings. They tended instead to put them into actions and discharge them through the muscular system. Certainly physical activity is one of the easiest ways to discharge tension. They showed difficulty resting, relaxing and being quiet. One patient said, "You see, doctor, my nerve is in action, driving a car and taking risks and when I have to stay still in one place I don't have any nerve at all". Thus, these people with much hostility, emotion and steam have few channels of discharge. Motor activity was the characteristic channel.

Unlike other types of people who have been raised by strict parents or been subjected by strict authoritarian ideals these people seem to try to avoid and get away from authority. They do not feel close to the authoritarian figures and despite hatred come to depend upon them. When they were frustrated in their desire to avoid authority or had to succumb to external pressures they had a need to do something about it, quickly and impulsively, instead of just keeping their anger bottled up and boiling inside of them. Other types of people in such circumstances may become sulky and submissively resistant. Others would become de-

pressed and others openly would become defiant and rebellious. In the face of marked hostility two very strong emotional drives are likely to emerge. The first is to injure, hurt or revenge themselves upon the offending authority. The other is guilt and the need to punish oneself. These people, boiling with anger, show a need to punish the offending authority and themselves simultaneously. Repressed individuals sometimes do this quite consciously by suicide. In these people the process seems to be without conscious premeditation. By suddenly having an accident they could simultaneously punish themselves and accomplish revenge. Injured, they could not meet the boss's demand for work or the wife's need to support her. In the bargain they might make these authoritarian figures feel sorry for having frustrated them, and top it off by punishing themselves with a painful injury.

The unconscious aggressive tendencies directed against the self explain the paradox of overinterest in health and avoidance of miltilation and the risky behaviour. Dimly aware of the drive to self injury, the conscious mind seeks to protect them from themselves. When the internal pressure is great they fail in an impulsive moment.

TREATMENT OF THE ACCIDENT PRONE INDIVIDUAL

Theoretically, by intensive psychotherapy the conflict and the accident as a type of solution could be changed and accident-proneness reduced or cured. Actually, of course, it is not possible for each of these patients to enter into a prolonged psychotherapeutic relationship. They are not naturally introspective people. They do not usually suffer from conscious psychological symptoms, and they do not recognize a need for psychotherapy. Their conflicts with authority, their need to do things for themselves and their tendency to deny emotion makes them unlikely candidates for psychotherapeutic relationships. Physicians who surgically or medically treat patients with a history of repeated accidents by tactful handling can undoubtedly obtain the cooperation of some of these people for psychotherapy. For the others, can we develop some means of reducing the accident proneness?

In view of these discoveries, the conclusion is inevitable that the reduction of motor vehicle accidents requires among other measures recognition and improvement of the psychological factors which are involved. What can the physician contribute to this problem? We believe that there are four avenues of positive action: (1) Prophylaxis by recognizing and predicting the likelihood of accidents in a given patient; (2) Treatment of the accident patient with attention to psychological factors; (3) Public education about the psychological factors in accidents; (4) Research into better understanding of the problem with the view of making recommendations to motor vehicle authorities.

The prophylaxis against accidents includes many kinds of situations. It involves prediction that a given patient may have an accident. This may require examination with this view in mind or we might state that whenever a physician examines a patient his thinking might be tuned to predisposition for accidents. When we do a physical examination we consider the present status and also what complications might be expected. When we discover a marked anemia in a patient we may warn him to beware of high places because he might be subject to dizziness. If we note coronary sclerosis and in our own minds predict an occlusion we may warn the patient against driving a car. If we order certain medication which we know may produce some impairment of awareness and clarity of thinking we consider it our responsibility to warn the patient. When we find defective vision or hearing it might be wise not only to think in terms of treatment but in terms of what the disability might do to our patient's ability to drive safely. In general we strongly advise epileptics not to operate any kind of machine and we might extend this kind of prophylactic thinking

to other neurological illnesses or somatic diseases that could cloud consciousness. In addition, however, it might be sometimes possible to predict that our patient is in an emotional situation which might predispose him to accidents. During the examination of a patient for whatever cause, if we get the feeling of frustration and resentment toward authority and a tendency to deal with it by motor activity we might tactfully inquire into our patient's life and gently point out the vulnerability at this time for accidents. I recall a young man in psychotherapy for reasons that did not have to do with acciden-proneness. It was known, however, that in situations of resentment toward authority, he tended to act impulsively and many times had injured himself. One day during a therapeutic session it became evident that he was extremely angry at the psychiatrist but was unable to express it. The psychiatrist thought to himself, "I'll bet he goes out and hurts himself." Unfortunately the doctor said nothing to the patient. The next visit the patient wore a large bandage on his hand. A knife had slipped while he was carving the roast. It was anger at the physician, guilt because he felt unjustified at being angry, and the need to punish himself and make the doctor feel sorry for him. Several months later a very similar situation arose in therapy. This time as the patient left the office the doctor quietly said, "Maybe you could express some of your anger toward me the next time you come in, instead of going out and hurting yourself." The next visit the patient reported that he had several times almost injured himself but instead on each occasion had under his breath muttered some choice explicatives and felt angry toward the psychiatrist. This was the beginning of a growth process in which a new way to deal with resentment toward authority was found, a way less self-destructive and less dangerous to fellow citizens. There are people who become aware of the combination of factors which is likely to lead to accidents and in such circumstances they force themselves to be cautious. We know several such people who do not operate their automobiles until these stresses have been resolved.

In the treatment of any patients who come to us injured it might be wise to search into the past history of accidents or into associated psychological factors. When these appear we might inquire of a patient if he thinks they might be related to the injury he has sustained. In this way seeds for introspection and the association of his conflicts and his injury might be sown in his mind. In the really accident-prone individual discussion of these factors or referral to a psychiatrist for treatment might be profitably initiated. Psychological factors which precipitated the accident may also markedly interfere with treatment and rehabilitation. Resentment toward authority transferred to the figure of the physician may make a patient uncooperative. One of Dunbar's patients insisted on moving a fractured arm prematurely because the physician had ordered him not to. The need to make others suffer or feel sorry may result in a prolongation of disability. These patients are rarely conscious malingerers. It is not advantageous to treat them roughly and increase their difficulties with authority. The doctor then becomes the brutal parent and unreasonable authority and provides a further reason for another accident. Exaggerated guilt may produce prolongation of suffering. During the convalescent period the physician has an excellent chance to help the patient recognize feelings of guilt or revenge before they become repressed and unavailable to consciousness. Discussion, ventilation and relief of some of these strong feelings may reduce tension, decrease chances for another accident and speed recovery.

The physician may aid in the accident problem by public education concerning the psychological factors. Although much has been done, more warning is needed about the effects of fatigue, stimulants, alcohol, drugs, poor health, impaired eyesight and deafness. Repeated admonitions aid these ideas in becoming part of the habitual thinking of the driver. In addition, there is need to make people

aware of the concept of accident-proneness. As in other psychological matters it is often a long time before a person with a given neurotic trait asks the important question, "Am I one of this kind of person?" However, as more and more people hear about accident-proneness as a psychological phenomenon they talk more about it, think more about it, and finally may look at themselves more critically. The person with a long history of accidents hearing others speak of psychological factors may ultimately ask himself why he has so many accidents. From this he may seek psychiatric help, but even if he does not, he may become more cautious and begin to recognize what situations are dangerous for him. Parents, becoming conscious of the phenomenon of accident proneness, may recognize it in their children and develop healthy ways of dealing with it. Employers could transfer their accident-prone employees to safer jobs or being more aware of conflicts with authority in his personnel and relieve them of dangerous jobs during times of stress.

The final responsibility of the physician in this matter is to think about it and try to formulate some ideas. Ideas clear-cut enough to be the basis for recommendations to employers, police or government officials may require more knowledge about the subject. This implies that we need to understand and digest the information that research has already offered us. Again the busy physician faces the problem of trying to ingest a vast amount of medical and psycho-sociological information which is piling up in our libraries. An important source of knowledge, however, comes not from our journals but from listening to our patients as they reveal themselves. Awareness of the psychological factors in accidents may mean that the doctor listens with a slightly different point of view to his accident cases. Thinking in terms of emotional forces makes it possible to hear things that we have never heard before.

In addition there is the need for more psychological research to better elucidate and understand the emotional forces that are involved. This, of course, requires money, personnel and the other requirements for research. The first stage in enlisting such facilities is public and professional interest. That is, there is a need to recognize the timeliness of the subject. We need to sell the importance of the idea. We need positive propaganda to compete with the people who so effectively sell valueless ideas.

The high frequency of accidents and discussions of the subject like this one today are vital in breaking ground for the arousal of interest in the human element in accidents.

Since certain accident-prone patients tend to repeatedly have similar kinds of accidents, a study of the accident records of the motor vehicle department might reveal chronic offenders who are a menace on the highway. State governments could consider revoking the licenses of such individuals. Their resentment toward authority would thus be enhanced, and they might have accidents in other apheres of their lives. The danger of this must be weighed against the danger to others of their accident-prone driving tendencies. Enforced psychiatric treatment of accident-prone drivers might be considered. In general, enforced psychotherapy of any kind is not likely to be successful but much of this difficulty might be overcome by a tactful approach to these drivers. Worthy of consideration might be a statute which required physical examination of any driver who was involved repeatedly in an accident. This examination could be oriented toward discovering medical factors which might interfere with driving and seek out symptoms of accident proneness. Those repeatedly involved in motor vehicle accidents might be required to have a psychiatric examination. When more research has been accomplished in the field it might be possible to predict and screen out the remarkably accident-prone individuals before the o r i g i n a l driver's license is granted. Policemen might be given an indoctrination course in physical and psychological factors pre-

disposing to accidents to increase their awareness and therefore their ability to predict. It is not the physician's role to formulate legislation. We are not in a position with our limited knowledge to be at all dogmatic or to make any strong recommendations. We can offer some of the knowledge that has been gained in research in the hope that some point will stimulate thinking and broaden discussion. It is a pleasure to participate in such a constructive approach to a very vital subject.

THE PHYSICIAN'S PART IN HIGHWAY SAFETY*

CAPT. C. PRESTON POORE,**
Dover, Del.

At the 1954 White House Conference on highway safety President Eisenhower stressed the importance of rallying public opinion behind the job of reducing traffic accidents. "Much would be accomplished with organized support behind all agencies working to promote safety. If public opinion can be brought to bear, he said, the problem can be solved."

There are many problems to be met in the field of motor vehicle administration, and it appears that one of the basic lines of attack is in driver improvement, and in keeping unsafe drivers from behind the wheel.

Few states receive large enough appropriations or manpower to examine all new drivers and re-examine those eligible for renewal of their license, hence the majority of Delaware drivers using our highway today have never had a driver license examination.

The licensing problem is a huge one, and a definite responsibility is that of the state employee to put only qualified drivers behind the wheel of our present day high powered vehicles. Unfortunately, no examination could be devised which could perfectly separate the drivers who will have accidents from those who won't. We cannot even give the best examination that we could work out. It would simply cost too much and take too long to give. Moreover, many drivers who are safe to begin with grow careless, become disabled, or develop infirmities with age. It is with the latter groups we are concerned today and seeking the cooperation of the medical profession in removing many potential accident causes from our highways.

In a recent magazine article, "The Man Behind The Wheel", by Leon Brody, Director of Research, Center for Safety Education, New York University, Mr. Brody refers to the responsibility of the medical profession. "That the physician maintains a frequent and close relationship with the general public, and as a matter of cooperation with the licensing and driver improvement program it is urged that the medical profession in cases of acute and chronic illnesses, advise their patients of any conditions — and that covers drugs and chemicals used in treating these illnesses — that may endanger their safety and the safety of others on the highway". Drivers must understand that if they are suffering from a mental disease, or any disorder that may cause momentary lapse of consciousness, or the loss of the control of their vehicle, they are endangering not only their own lives, but also the lives of others, and should forfeit their operating privileges. If the physician is unable to solicit voluntary surrender of driver's license then I am of the opinion it is their duty to report those cases to the Motor Vehicle Department along with their recommendation. You will probably note that I said along with their recommendation. The reason for this statement is there could be cases where a complete revocation of operating privileges would not be necessary, but rather that operating privileges could be restricted or limited, i.e. restricted to operating during hours of daylight only, operate in rural areas only, etc. There are many type restrictions incidental to the individuals capabilities to operate motor vehicles safely that can be put on driver's license.

The Motor Vehicle Law 21 Delaware Code, Chapter 27, subchapter 1, section

*Read before the Medical Society of Delaware, Dover, October 13, 1954.
**Driver Improvement Division, Department of Motor Vehicles.

2706 states: (1) The department shall not issue an operator's or chauffeur's license to any person who is an habitual drunkard or is addicted to the use of narcotic drugs. (2) To any applicant who has previously been adjudged insane or an idiot, imbecile, epileptic, or feeble-minded and who has not at the time of such application been restored to competency by judicial decree or released from a hospital and upon a certificate of the superintendent that such person is competent. (3) That such person is afflicted with or suffering from such physical or mental disability or disease as will serve to prevent such person from exercising reasonable and ordinary control over a motor vehicle while operating the same upon the highways. Section 2774 of the Motor Vehicle Code under the discretionary suspension of license, the department may suspend the license of any person who is incompetent to drive a motor vehicle or is afflicted with any mental or physical infirmities or disabilities rendering it unsafe for such person to drive.

The epileptic, for example, has no difficulty in making application for and receiving Delaware license. The examiner has no way of knowing the person he is examing is an epileptic, unless, he should see them in an actual seizure, nor is he able to tell those who are afflicted with other mental or physical conditions which would make them unsafe drivers.

Under the same Chapter, section 2720 of the Motor Vehicle Code states: the department whenever good cause appears, impose restrictions suitable to the licensee's driving ability with respect to the type of special mechanical control devises required on a motor vehicle which the licensee may operate or such other restriction applicable to the licensee's driving ability arising out of or caused by the physical defects or infirmities as the department determines to be appropriate to assure the safe operation of a motor vehicle. This section of the code gives authority to issue special or restricted license. Cases involving the amputation of limbs should be reported to the department for re-examination to determine what restrictions are necessary to insure the safe operation of motor vehicles. It is next to impossible for the administrator to properly enforce the provisions of the statute without the full cooperation and support of the medical profession.

I would like at this time to quote a few figures from our 1953 summary of motor vehicle traffic accidents. In 1953 there were 230 traffic accidents involving operators over the age of 75. I am wondering what percent of these drivers could have been under treatment for some chronic or serious illness, of such a nature as to render them unsafe drivers? How many of these accidents could have been prevented had the driver improvement division been requested to restrict or limit operating privileges. Let me assure you that this is no attempt to single out this particular age group as bad drivers, but rather an attempt to show that in proportion to total miles traveled their accident rate is high.

In closing I would like to state that as tragic as our accident picture is today, all is not lost. Through the cooperation and support of all interested agencies, all working toward one common goal, we can reduce accidents and save lives.

SAFETY EDUCATION AND THE PHYSICIAN*

J. JAMES ASHTON,**
Wilmington, Del.

Following these two distinguished speakers I am probably in the corner, because I listened to both of them use quite a number of the facts and figures and arguments that I had hoped to present to you.

I had planned to show you a ten minute motion picture entitled "Moto-Mania". It is an animated technicolor cartoon produced by Walt Disney, which shows in a humorous way the serious aspect of highway accidents. But time is of the essence, so I merely want to mention the fact to

*Read before the Medical Society of Delaware, Dover, October 13, 1954.
**Executive Secretary, Delaware Safety Council.

you and tell you that in addition to that picture we have in the Delaware Safety Council's motion picture library approximately 85 safety motion pictures dealing with all the various aspects of street and highway safety problems—the home, the industrial plants, and almost any category that you would like to see, including some of the safety angles in hunting and fishing. We also have two 16 mm. sound projectors, that are for loan throughout the state of Delaware. If you would like to borrow any of the films for any of the organizations with which you may be affiliated, you are certainly entitled to have them.

About two months ago I had the pleasure of having breakfast in Chicago with your Under Secretary of Commerce, Walter Williams. During our breakfast conversation I learned from him quite a number of very interesting facts about the population of the United States.

He pointed out the fact and I am sure you are cognizant of it, that Delaware is the fifth fastest growing state in the United States and that it is the second fastest east of the Mississippi. And you are also aware of the fact that the largest percentage of the population growth is occurring in rural New Castle County.

Kent County, at the present time, because of the Dover air-base, is experiencing some of that growth. Actually, are you aware of the fact — and I know you doctors were there at the very beginning — that one person is added to the population of this country every five seconds. That includes immigration, plus births, minus deaths, and is a total gain of one every five seconds. So that you can readily see that in a period of time the population of this country will be very much larger than it is today.

At the end of twenty years those people again are marrying and having families. It is like money in the bank at compound interest. So we are going to have an enormous population.

Our automobile registration in the United States is 53 million registered automobiles. And the manufacturers predict, and I believe quite accurately, that by 1975, which is not too far away, the registered automobile population in this country will be 85 million automobiles.

You are probably familiar with a project that is emanating from Washington at the present time, under the three initials of PAR, standing for "Project Adequate Roads". It is a federal program in which the federal people are now attempting to secure the active support of the state governments and state officials to build a highway the entire length of the United States at a cost estimated from $50 billion to $100 billion. They propose to do that in a period of ten years — spending approximately five or ten billion dollars every year. And eventually, when the project is concluded, we should have in this country a highway system that is modern and capable of handling the enormous population that we know we will have, both in the human element and in the automobile registration.

I listened to Dr. Appel mention our fatalities on the basis of 100,000 population. That is a very accurate way of registering our automobile fatalities, but did you ever stop to think, and think you must, about the situation in Delaware? The 45 per cent fluctuates from time to time, but it means the average would be that 45 per cent of all the traffic on the main arteries and the main highways of the state of Delaware is out of state traffic? They are people who are moving through our state. Now that is equally true since we have completed the beautiful Memorial Bridge, and we have connected it up with the Chesapeake Bay Bridge, so they have thousands and thousands of vehicles going through Delaware, and they as I say, contribute about 45 per cent of all our fatalities and all our automobile accidents.

So whenever the statisticians take a chart and compare the states of the Union and they put the little Diamond State of Delaware on a 100,000 population basis, do you see the licking we are taking? The

average out of state fatalities for all the states in the Union is five per cent and here's the little old state of Delaware with 45 per cent!

When I speak to my friends from Florida and California they almost want to trounce me when I tell them we have a larger percentage of traffic going through our state than they have, and they are commonly known as the two vacation states in our country. I wanted to point that out so that if you see that little black chart making those comparisons, please keep that in mind.

Quite frequently another yardstick that the statisticians apply is on the basis of the number of fatalities per mile — that is, per million miles traveled — which again is a very accurate way to apply it. It takes into consideration the exposure. In an industrial plant they don't say how many fatalities per hundred or thousand employees alone — they also take into consideration the number of man hours worked, which indicates the actual hours of exposure to accident. And keep in mind that many of those traveling through the state of Delaware never buy a gallon of gasoline, so actually they are traveling through the state, and it does not reflect one mile when we take the gasoline tax receipts and figure out the number of miles and the number of fatalities per mile traveled so, again, our fair little state takes a trouncing on that statistic.

Dr. Appel mentioned that staggering figure of nine and one-half billion dollars, which is an accurate estimate of the total cost of all our accidents in the country during one year. That was 1953. Now, do you realize with that money if we could apply it in certain directions, that the United States could maintain with that money 100 infantry divisions, instead of the 18 that we are maintaining at the present time? Do you realize that we could build 2,700 B-36 bombers with that money?

Then, on the civilian side, and this may be of particular interest to you, we could build 1,300 hospitals, of 500 bed capacity with that money. Or we could build a 3 bedroom $12,500 home for 800,000 Americans.

I am trying to get across to you that the economic problem is enormous. We quite frequently hear some of our colleagues and safety engineers say the overall subscription or membership from the public to support safety organizations in the country is just a little over $4 million a year. Yet our SPCA, prevention of cruelty to cats and dogs has a budget of almost $11 million. Now after all the comments that you read in the papers about dogs, bird dogs, and kennel dogs, I don't want to say too much about dogs, but is it indicative of the fact that we think more of animals than we do ourselves? It is really worth thinking about.

We spoke about educating the driver. I would like to mention to you, and I would like to extend to your organization an invitation to put one of your members on a committee of the Delaware Safety Council which at the present time — is formulating plans for a Youth Conference on street and highway safety to be held in Dover, November 6th. That Youth Conference means exactly what it says — it is for the teen-agers. We adults can talk about the teen-agers but they are having this conference in Dover. Many of the state organizations are cooperating, and we are asking those children, three from each high school of the state of Delaware, including the private and parochial schools, to sit down and go into five different sessions, with five different subjects, and come out with their recommendations for how to handle the teen age driver in the state of Delaware. They are going to make their own recommendations as to what they think is wrong with their age group. You all know that the insurance companies actually penalize them, because the statistics indicate that they are in the age group that has more than their share of street and highway accidents.

More than five years ago I traveled to New York and talked with one of the officials in the Association of Casualty In-

surance Companies, and I said, "In the state of Delaware" — and incidentally we were the first state in the Union to put student driving in to our schools on a state-wide basis — "we have a number of splendid graduates from this course. I know you are in favor of it, because we use your textbooks in the schools—Man and the Motor Car. Now, would your company, that embraces all the casualty companies in the United States be willing to, rather than increase the rate, hold it even to the present figure or possibly reduce it, for the bona-fide graduates of this course?"

He liked the idea very much. He told me later, however, that he had studied it carefully, but because the student driver training program did not have sufficient national application at that time, that they would not be able to do anything about it. But today, two of the insurance companies have recognized the need for some sort of merit program, for the children who have graduated from this splendid safety course. If you are the father of three or four teen agers in your family it will make a difference in your insurance program of something like $50 or $60 a year.

The course in the public schools is free. To give you a little background of how that came about, the Delaware Safety Council pioneered Student Driving in 1934 and it gathered enough momentum to actually break us, because we are after all a non-profit organization and we did not have much money.

Finally, the State Highway Department said, "We will match you dollar for dollar." And the program gained additional value and doubled in size, and again the Safety Council was broke.

When I got back from World War II they said, "Jim, you visit every high school in the state and get an answer in a one-syllable word from everybody as to whether they are ready to put in the driver program. In a much more diplomatic way I visited all my good friends from schools and 100% were in favor of putting the program in the curriculum and paying the bill.

We recommended radar three or four years ago. At the present time it is doing a remarkable job. It is a real deterrent to speed, and as Dr. Appel and Capt. Poore told you, speed is one of the principal causes of our highway accidents. The radar device is a very capable machine for making you think where your speedometer needle is resting.

We need another machine, and I think the medical association would be of help to us in that. It is a machine that would be as effective as radar; an Intoxometer or Drunkometer, whatever you want to call it. But it indicates rather conclusively whether or not the person is under the influence of alcohol. There are, frankly, too many people driving intoxicated in Delaware and in other states and getting away with it. It is very discouraging to the police force to make a legitimate arrest for drunken driving and when it gets in court it becomes a very minor charge, and the drunken driving charge is thrown out entirely. It is an easy thing to lick. It is easy to tell the lawyer, "John, I wasn't drunk — I bumped my head on the car and staggered a bit."

It is really serious. There will be a bill put before the next Legislature asking that the Intoxometer be introduced in the courts. The Police Department has it, but the evidence it gives them is not admitted in the courts. About 34 states of the Union have adopted it as legal evidence, and it is making some difference in the number of street and highway accidents. Now we have an inspection of automobiles, and I will just quickly tell you that the Delaware Safety Council pioneered in that mechanical inspection of cars.

A number of our friends from neighboring states will say "I don't see a sticker on your windshield. Are you so heathenish in Delaware that you don't have a car inspection campaign?"

All we say is, "See the license plate on the back of the car? That is the inspec-

tion sticker — we have had it for years."

Frankly, we like the state-owned and state-operated inspection much better than the average garage, and today the garage man likes it, too. He is conscious of the fact that you are separating the wheat from the chaff for him. The cars that need repairs you get after, and he is fixing them. They would be happy to see that come to pass all over the country. So if we inspect their automobiles, I think we should inspect the drivers.

I think every driver should periodically be inspected. I don't mean a rigid examination, but start with a few fundamentals and as the program gains momentum, build it up. But my personal thinking is that it should not be mandatory for the Motor Vehicle Department to make these inspections; I think the applicants for license should come from the doctor's office, with a certificate certifying "I am physically qualified to drive an automobile." Or, if you have any physical handicap, so indicate on the examination blank what it is. It would be a real step forward. I have never had an examination; a lot of people never had, and they should. Now, we talk about horsepower and speed. A lot of people say, "Why do the manufacturers make cars with so much horsepower when the safety people tell us it is speed that is the major cause of all our accidents?"

The automobile manufacturers are caught in a competitive race; they would be very happy to get out of the race. But as soon as one car adds 5 h.p. to their power, another car adds 10, and then some other make comes along and adds 15. They would be glad to get out of it— but, keep this in mind, the ENO Foundation in Connecticut is making a study of horsepower vs. speed. It is not a complete study at the moment but they find cars with 100 to 235 h.p. — but all travel at approximately the same rate of speed. One may get away a little faster and may sustain it a little easier on the hill, but they are all traveling at the same rate of speed, regardless of their horsepower, which indicates, I think, very conclusively that it is not the horsepower in the motor itself, it is the driver behind the wheel.

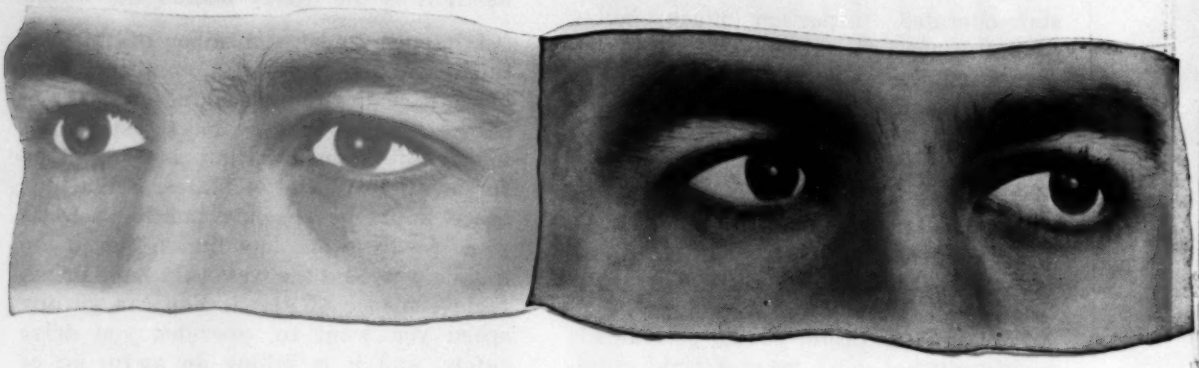
I happen to be a member of the National Motor Vehicle Committee that meets periodically in Washington, and one of the changes that we have just recommended for consideration, and we hope for adoption by the 48 states, is that our speed limits be absolute limits. In Delaware we have absolute limits, but in the middle west and the west they have prima facie evidence of speed. You can go any speed you want to, provided you drive safely, and it is killing an awful lot of people, and it is very difficult to enforce. So the Committee, after much discussion, finanlly recommended an absolute speed, and they were agreeable to 60 miles per hour, which may mean an increase in some states. But they also make this recommendation; that when the speed is 60 miles per hour in the daytime, it be reduced to 50 m.p.h. at night, because of visibility and overdriving your headlamps. And I think in a period of time that will be adopted by many of the states.

The Medical Society could help the Delaware Safety Council and all the organizations interested in safety if through your membership you would make available to us a very brief report on the number of home accidents that come to your hospitals that require hospitalization.

Today very few people know the real causes of home accidents. One large hospital in Wilmington cooperated with us on that program for over a year, and we found that the principal causes of home accidents that were hospitalized in that hospital were falls, and the place of occurrence happened to be in the kitchen, and the time of day happened to be Saturday, in the afternoon, and, believe me, it involved more men than women. So you can sum that up by saying the cause of home accidents were men falling in the kitchen on a Saturday afternoon.

When I talk to the City Federation of Women's Clubs, I always tell them, "For

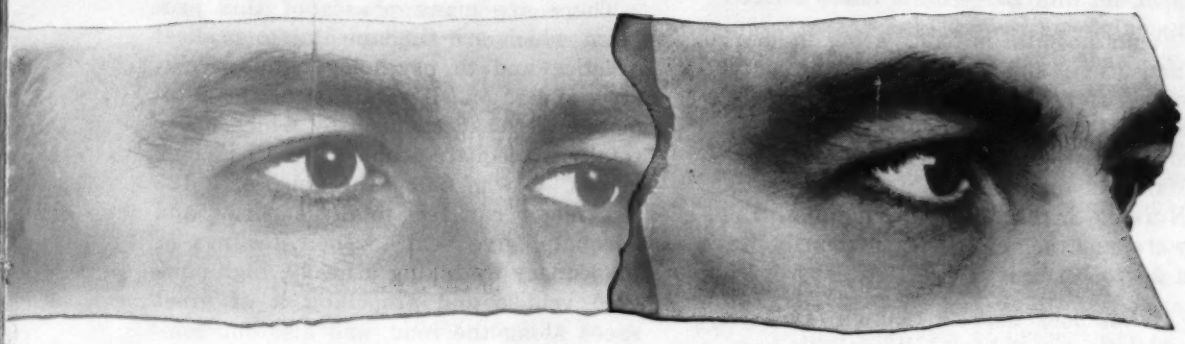
MORE AND MORE PHYSICIANS ARE TURNING TO



ACHRO

WHEN A BROAD-SPECTRUM ANTIBIOTIC IS INDICATED

Lederle



MYCIN*

HYDROCHLORIDE
TETRACYCLINE HCl *LEDERLE*

Within the first few months of its introduction, ACHROMYCIN was being widely prescribed. Each succeeding month has seen its usage increase as more physicians have come to know and value ACHROMYCIN in its many dosage forms.

More than a year of widespread use has established ACHROMYCIN as a true broad-spectrum antibiotic, well tolerated by both young and old. It has proved effective against a wide variety of infections caused by Gram-positive and Gram-negative bacteria, rickettsia, and certain viruses and protozoa. Compared to certain other antibiotics, ACHROMYCIN provides more rapid diffusion; it is also more soluble, and, once in solution, more stable.

Truly, ACHROMYCIN has become a major weapon in the fight against disease.

LEDERLE LABORATORIES DIVISION *AMERICAN Cyanamid COMPANY* Pearl River, New York

* REG. U.S. PAT OFF.

heaven's sake, if your husband wants to go fishing or play golf on Saturday afternoon, let him go — he is much safer."

Your hospital is today a big industrial institution, and you need many of the same safety checks and safeguards in the hospital that the industrial plant has. Many of your hospitals are in good shape. Many of them need a lot of correcting. Nursing homes, in particular, in Delaware, and the newer ones, primarily, leave a lot to be desired.

What does that do to highway safety, which is my subject? When you have a fire in the nursing home or in the hospital you have got a voluntary fire company running at break-neck speed down the highway, trying to get to the fire. They have a driver aboard, and 20 or 30 others are hustling into their cars from all over the country, to help put out the fire. It is one of the biggest hazards we have on the highway, and a little preventive maintenance back home will prevent all that. I hope I get that point across.

I could go on and on, but I think probably I had better stop. May I say as Manager of the Delaware Safety Council and also as a member of the Board of Directors of the National Safety Council I am sincerely heartened to think that the Medical Society of Delaware thinks enough about the safety program to include it on your very important program, and I want to tell you that if there is anything we can do in the Delaware Safety Council to assist you in promoting or advancing your safety program, don't hesitate to call on us.

DISCUSSION

of papers by Dr. Appel, Capt. Poore, and Mr. Ashton.

DR. H. T. MCGUIRE (New Castle): I think the State Society is showing a proper attitude in adding such a subject to our program although I think it is inappropriate that Mr. Ashton's and Dr. Appel's and Capt. Poore's figures and statements are not rewarded by a greater number of people being present. However, I don't think it is medical indifference, but medical self-interest, rather, and being just too busy.

There are many phases of this program which are fundamental to medical practice and to psychology and psychiatry, and so on. It seems to me the automobile is the mechanism by which many totally inadequate people — and I include myself — who under the guise of a 125 h.p. motor can feel totally superior and adequate, give vent to their feelings of inadequacy by taking a heavy, high-powered vehicle and propelling it at great speed along the road, and also our competitive challenge to the other fellow on the road, if we can display our exhibitionism by beating him.

I think that two elements are vital in our traffic accidents. They are the human factors — the human factor of emotionalism of immaturity, and of attempting to demonstrate superiority. Then, add to that the very human element of common discourtesy—discourtesy at intersections, discourtesy in recognizing the rights and privileges of the other man. These things, it seems to me, are fundamental and elementary in this great problem of our technological advancement. And they are not going to be solved by engineers.

There is no question but what your engineers can put together a beautiful and highly engineered piece of machinery, but by the same token we can't put together or assemble or put behind the wheel a coefficient of human equality. It just is not there. And that is where the training has to begin. I am sure if most of us ran our businesses as we run our automobiles we would all be broke.

I am in sympathy with what Mr. Ashton says about the wrong citizens getting caught, that many of the people that are humanly and Christianly motivated in many areas will go out and violate traffic laws, and violate other people's rights.

Thomas W. Ryan, the Director of the New York State Police spoke at the meeting they had in New York and I read of it in the *New York Times*. It seems lawlessness, failure of individuals to recog-

nize other people's rights, and the human element of attempting to propel these machines beyond our ability and capacity to stop them, and common, ordinary discourtesy, are the primary factors.

I think education is important. I would like to see this driver program extended to private schools. I think the kids in the private schools are as much a hazard on the highway as the public school kids are, and I think some method should be developed in that direction.

DR. L. L. FITCHETT (Milford): Any disease that causes 40,000 deaths in a year, any communicable disease, would have long since been met with and conquered, probably, by the medical profession. And certainly we have here an entity, if not a disease, that is causing 40,000 deaths every year. So I feel it is high time, as implied by this session today, that this thing be met and discussed, and that some solution come by to cut down this appalling death rate, not to mention the terrific economic loss of $9 billion each year to our nation.

Probably public education will be the greatest field that can be brought to bear upon this problem, as Dr. Appel has already stated. Who else but the medical doctor can step in after the accidents and talk with the victims? He is the first one to see them and the last one to see them before they return to their normal paths of life. And who else but the medical doctor can be in a better position to correct some of their faults which may be at the background of these accidents. Who else can decide, who is in a better position to decide, if recommendations should be made, or can be made?

I have only two questions: perhaps Capt. Poore could answer one.

Are the inspection laws in Delaware rigid enough? Do you feel or do the State Police feel, they should be more rigid, particularly applying to these recurrent offenders?

And I am also thinking about this — of course it doesn't apply to any here, but I am thinking of those over 80 or 75 who are still driving on our highways. Do we have laws that could apply to them?

CAPT. POORE: No, sir, we did have such a law, but the Legislature saw fit about 12 years ago to do away with that law, and we don't have any re-examination law at all. No one is required to take a re-examination at any time, so long as they have obtained a Delaware license and it isn't revoked for cause, or suspended.

DR. FITCHETT: And I would like to inquire about the inspection of cars. Do you feel that the laws at present are severe enough in those instances?

I am thinking of a recent accident we had in Milford, a fatality, where the driver was driving a car I suppose 25 years old, that must have passed the annual inspection, but yet that car apparently wasn't adequate to meet the modern driving standards.

CAPT. POORE: We feel that our inspection standards are adequate, if not better than the rest of the states, with the exception of New Jersey, which has state-owned inspection stations, the same as Delaware. But they require two inspections a year, whereas we require one.

You have certain factors there to consider, such as a car with two-wheel brakes or of great vintage. The law says you must be able to stop within 40 feet, traveling at 25 miles per hour. I feel that the overall inspection program in Delaware is adequate. In fact I think it was something less than 7 per cent of the accidents that can actually be tied to mechanical failure.

DR. FITCHETT: In the essays today most of the talk has been aimed at correction of the defects of the driver himself. A second phase is in the correction of the highway, itself, and Mr. Ashton touched upon the Federal proposals of the last few months. The third field is in the correction of the car, the vehicle itself. And that has just been touched upon. I would like to ask Mr. Ashton if he feels there is any future in the safety

suggestions we see occasionally — that is, the safety strap for the front seat passengers, and the installation of a windshield that will fly out on the slightest impact, rather than crash into the skull. And the compulsory soft - foam - rubber dashboard, and the door that don't fly open on impact, letting the driver fall out. Is there any future in that type of legislation?

MR. ASHTON: You certainly covered the field, there. Yes, indeed, the manufacturers have worked diligently to improve the cars and we honestly believe the automobile on the highway today is the safest car we have ever had.

A couple of years ago I talked to a group of manufacturers and other safety council managers and each tried to ask them some particular thing that they had not complied with where we thought they could. One point I wanted to bring to their attention: as we know, night glare causes temporary blindness, and a lot of people while temporarily blinded, have accidents. So we asked the automobile manufacturers if they could possibly polarize the headlamp lens so that the glare wouldn't escape but would be filtered right there, and you didn't have to wear special glasses or have a special windshield to eliminate it, but eliminate it right at the headlamp itself. They gave us quite a long argument as to why they couldn't do it, but I think in some of the present plans they are considering it.

One of the arguments they gave us is that they would need a different electrical system than they have in the present automobiles. A lot of the cars are going to the 12 volt batteries instead of the old 6 volt, as in the past, and in that system they have in the wiring a potential to eliminate the glare from the headlamps.

The foam-rubber on the dash is a recent innovation; we think it is good. The safety strap has advantages and some disadvantages. Some people have been burned to death because the strap held them in and they couldn't get them out. So there is an argument pro and con on that.

Among other factors, the brakes are better than they have ever been. The car can stop quicker and with more ease. I believe the steering is much easier. In some cases it is so easy the people have the impression you can put your elbow on the window and the other hand on the ceiling and take one finger to steer the car. It is so safe it is getting dangerous.

As to the windshields that go out in a crash, I am not to sure whether I would rather have a slight fracture of the skull or go through the window and lay on the highway and have a dozen bones broken.

You mention the automobile fatalities at 40,000. I didn't tell you in my predictions that when we have this population we were talking about and the 85 million registered cars in 1975, that it is also predicted that unless a downward trend occurs in the automobile fatalities there will be 75,000 a year instead of the 40,000 we have at the present time. So you can see we need all the help we can get in this accident prevention field.

If the doctors in the hopsitals spent more time on accident prevention, you wouldn't have so many charity cases to take care of when the accidents happened.

I wanted to mention one thing: we have on our staff of the Safety Council an automobile driving instructor who is currently teaching student driver training in the private schools. I must admit those private schools are in the Wilmington area. He has a maximum load of 150 students. That is about all an instructor can take out behind the wheel.

We find it interesting that in Wilmington it takes an average of eight hours to train the student behind the wheel, whereas in rural Dover it takes about five hours. I think we explain that by saying that the rural children are exposed more to machinery than are city students — they have a long lane and a back yard and they run the family tractor and acquire the fundamentals so much quicker than do the city children.

We are beginning to learn that some of the dads in the country who have had

their license revoked for driving the automobile are taking the family tractor to go to the grocery at night.

DR. J. R. FOX (Dover): I have a couple of questions. I would like to know what the safety group feels about the tinted windshields and glass inside the automobile?

MR. ASHTON: That is a good question. I am driving a car that has tinted glass. Frankly, I like it. It does cut down on your visibility, though, especially at night. If you are careless and let the tinted glass get dirty with bugs or dust or dirt, etc., you reduce the visibility anywhere up to 35 per cent. And that was one of the factors in our thinking in the Uniform Motor Code committee — the night speeds should be reduced. There are certain times in the day, a bright, sunny day, where it is decidedly a safety factor, and again at night, when it is more of a hazard than a help.

DR. FOX: Another question. I know Capt. Poore, and I have talked to him about this problem of re-examination. I am not sure just where the responsibility should lie, in my own mind, because I am often put in the position of determining whether a person should be granted a driver's license. I have often wondered, wouldn't it be a good idea to have a visual examination as a speed requirement in the state, so if the results of the examination reveal that this person can see so and so he either meets the requirements or doesn't — a fixed requirement, and no argument about it.

Putting the physician in the position where in his judgment the patient is a capable driver or is not is not good for the physician's relationship with the patient, because if he doesn't get a license you have made an enemy, and you can't tell in the office what this man can see on the road, just because he can read your chart.

CAPT. POORE: We have been working on that program. We did put in a standard that the person is not eligible if he can't get 20/40 vision, unless they get a special license on the recommendation of their physician. We have had cases where the doctors themselves recommend that the person be restricted to daylight driving, only; that he should not be driving at nighttime. We have them under a restricted license. We require examination of them each year. But we will not issue a license to anyone in Delaware who can't pass a 20/40 corrected vision test. If they can't meet the requirment we refer them to their doctor by a card and we are guided by the recommendation of the doctor. If he has poor vision in the left eye according to the doctor, we call that to their attention, that because of the poor vision in the left eye they will have to be rather particular in watching intersections to the left, and so on. But we do have standards and I hope my examiners are sticking to them.

DR. FOX: I was wondering particularly about re-examination. That is my main problem. We run into people who have had a license for say 25 years and the vision has deteriorated in the meantime. Is there a possibility of getting legislation passed whereby anybody going through an optometrist's office is reported, and when you get a drop in vision at the time they are re-examined for new glasses you will know?

CAPT. POORE: I presented a bill at the last session for re-examination of the driver. I hought it was a means of getting it started—for re-examination, only. Then by presenting themselves at one of the inspection lanes or with a certificate from the doctor it would give us a chance to look them over, if they had had an amputation or other injury since they got the original license.

A lot of states — Virginia, for instance — passed such a law, requiring a test prior to the renewal of the license. But I have got to have support on that; I can't put it in the legislature and simply say I would like it. But we could handle it very well if we had support on it.

DR. V. D. WASHBURN (Wilmington): Mr. President, I think that you, as the

President, and your Committee deserve commendation for having added this topic to the program. The program has been interesting and instructive and has still further value, providing that we don't cease and desist further activities in this area.

I am of the opinion — and this didn't come today, of course, because I was interested in this subject last year, as some of you may know — that this is a field of public relations, not only at the level of the State Highway Department and at the level of the Delaware Safety Council, but also at the level of the medical profession.

Following the issuance of the letter that went out from your department with regard to notification that now it was necessary for all doctors to report cases of epilepsy there was considerable discussion among members of the profession, and in some manner I may say there was some resentment. I recall having one member of our society saying "They have never defined epilepsy, so I won't report." And I heard another member of the profession express resentment that a medical man was required to report on medical problems to a layman.

All of that means that we in the medical profession need to have discussions such as have occurred here today, frequently, so that we can bring ourselves up-to-date and in tune, and come to realize not only our responsibilities to the community but also the opportunity that we have to contribute to the common good. So that first of all I would say that one of the lessons to be learned from the discussion here today is that we must make this a part of our regular program in the medical profession so that we will come to understand and to realize and to know of things in an area which normally we don't always think about. And then, on the other hand, at the level of the State Highway Department it would be very desirable that they come nearer to us or we get nearer to the State Highway Department, so that we can exchange our ideas and thoughts and make our contributions one to the other.

And, likewise, as an old-time member of the Board of Directors of the Delaware Safety Council, again, we need more of the Safety Council in our lives and more doctors in your activities. We would not then be talking just about epilepsy, say, we would be talking about convulsive disorders, and somewhere along the line, after we had more knowledge and education on our part, on the part of members of the Society, eventually we could come to conclusions. But presently we can join hands and convey to the legislators the fact that we need legislation that takes off the shoulders of the examining physician that responsibility. That is what Dr. Fox is talking about — the onus and responsibility. If by law we are required to report all communicable diseases or all abortions that come to our attention, we no longer have to defend ourselves to our patients because "that is the law". And the mere fact that you conceal where your information came from doesn't let Dr. Fox out, because that patient is apt to shrewdly conclude that perhaps his doctor violated the traditions of the profession and released information that came to him in his office. That is the thing we have to face and contend with, so that this discussion here, today, indicates that we have pioneered, and I hope we will continue to make this a part of our program. Out of it we can work more closely in terms of reportable diseases and in terms of reportable conditions.

So I feel that those of us who have stayed this afternoon have profited greatly by this symposium. Thank you.

DR. MCGUIRE: I think it is our job — not by law, not by regulation — but by moral obligation it is our duty to say: "Look, Joe, you are in bad shape; you shouldn't be driving an automobile." After all, who is in a better position than is the doctor to say: "Your heart is bad, you may have another coronary attack Thursday afternoon?" It seems to me it is a moral as well as a medical problem you face every day, and although we are

"pressurized" and the normal inclination is to give in to the patient, because after all we are selling ourselves, but here is the time we have got to say no. And I think it is as much the responsibility of the ophtholmologist to say: "Your vision does not qualify you to drive", and I think it is all right for Capt. Poore to say: "Dr. Fox says your vision is not right". We must face the situation squarely.

DR. W. E. BIRD (Wilmington): Reference was made to the drunkometer, and as to its findings being used in court as evidence. Before such a bill is drawn, if you haven't already done so, I would urge you to read the article that Dr. E. K. Marshall, Jr., world-famous physiologist at Johns Hopkins, wrote for the *Baltimore Sun* of October 2, 1954 showing certain pitfalls in the use of the machine and in the interpretation of its findings. I don't want to take any of the wind out of your sails, but it is not a 100% procedure, so before you stick your necks out with a bill in the Legislature, it would be well to know the facts that Dr. Marshall presents and then write your bill.

OMENTUM: ACUTE SEGMENTAL INFARCTION
Due to Primary Torsion

OLIVER A. JAMES, M.D.*,
Milford, Delaware

Segmental infarction of the omentum is an interesting and unusual entity. The pathologic findings, clinic course, and treatment are alike, regardless of varied etiology.

Secondary torsion of the omentum was first described by Marchetti, in 1858.[1] It has been reported three times as often as the primary type.[4] The phenomenon is associated with adhesions of the free end of the omentum to the peritoneum. It is frequently found with inguinal and femoral herniae (hundreds of cases reported). It may be contiguous to primary disease of any abdominal viscus.

Primary, spontaneous twisting was first reported by Eitel, in 1899.[2] Up to 1951 according to Sterling and Goldsmith,[3] 145 instances were recorded. These authors found 70 reports in the literature, obtained 72 through communication with 293 surgeons in five urban communities, and added three of their own cases.

Etiology: Several authors distinguished between (A) predisposing and (B) exciting factors.

A. Predisposing factors:

1. Anatomic variations of the omentum, such as tongue like projections, bifid structure, or a longer right half.

2. Obesity, with irregular distribution and accumulation of excess fat.

3. Omentitis of inflammatory, post-traumatic, or postoperative origin. This alteration, which according to some authors is always present, might be fugitive in nature and not evident on examination but sufficient to initiate torsion.

4. Arrangement of blood vessels. Omental veins are thin-walled and longer than the artery. Kinking of veins may cause distention and twisting around the shorter tense artery, initiating of itself a persistent torsion.

5. Omental cyst or neoplasms.

B. Exciting factors:

1. Trauma

2. Hyperperistalsis, with resulting increased passive movements of the omentum.

3. Vascular changes. Areas of thrombotic or embolic infarction initiate twisting due to increased weight of infarcted parts.

Clinical Features: They are not distinct. The diagnosis is seldom, if ever, established preoperatively. Often, because of the signs, symptoms, and laboratory findings, acute appendicitis, acute cholecystitis, or a perforated peptic ulcer is suspected. Mesenteric atherosclerosis, thrombosis, or aneurysm, aortic aneurysm, intraabdominal apoplexy, subdiaphragmatic angina, polyarteritis nodosa,

*Surgeon-in-Chief, Milford Memorial Hospital.

and tabic crisis must all be considered in differential diagnosis. Nausea and vomiting may be present. Abdominal pain is usually sudden. It may be persistent or remitting, in any portion of the abdomen. Most often the pain is on the right side and in midportion. There is acute tenderness and there might also be rebound tenderness and rigidity. At times a palpable mass is found. Fever and leukocytosis are present.

Pathology: On inspection, a red discolored and indurated segment of the omentum is found. Fresh adhesions are common. The diseased segment can vary in size and shape but is characteristically at the free margin of the omentum, usually on the right side. Microscopically, the adipose tissue is markedly congested, veins are thrombosed, and there is hemorrhage into the fatty tissue. The surface of the area is infiltrated with segmented leukocytes, plasmocytes, and monocytes.

Treatment: That should include removal of the diseased portion of the omentum. A right rectus incision is mostly recommended. The presence of serosanguinous fluid in the peritoneal cavity and failure to explain symptoms by other pathologic alterations should arouse the surgeon's suspicion. Without untwisting the torsion, the pedicle should be ligated at its base and excised through healthy tissue. Recovery is usually uneventful.

CASE 1

White female, 51 years old, admitted to the Milford Memorial Hospital (#47763) on January 23, 1954. Chief complaint was severe abdominal pain. Present illness started with a sudden attack of nausea and vomiting two days ago. This was quickly followed by persistent severe pain in the right side of the abdomen and under the right breast. Sedatives failed to relieve the pain. There has been considerable vomiting during the last 24 hours.

History: The family history was noncontributory. The patient was hospitalized from March 27th until April 3rd, 1950 for similar symptoms. At that time a tentative diagnosis of acute cholecystitis was made. A gall bladder series was entirely negative. During the past year the patient has had attacks of pain resembling the present one, almost every month. Married for 25 years, she has had five children three of whom are living and well. Menopause occurred in 1943.

Physical examination: Patient was of small build and was moderately well nourished. Blood pressure was 110/78 mm. Hg., pulse 96, and respirations 20, temperature 100.2°F. Examination was negative save for the abdomen. There was definite tenderness from the right costal margin down to just over McBurney's point. There was definite muscle spasm and rigidity with rebound tenderness. The question of a mass to the right side of the navel occurred. W.B.C. 16,750, with 90% segmented forms. Other laboratory tests were within normal limits. Preoperative diagnosis: acute cholecystitis with empyema, or acute appendicitis with periappendical abscess.

Treatment: Laparotomy was performed promptly, under spinal anesthesia. The abdomen was opened through a short mid right rectus incision. The gall bladder appeared normal. No calculi were palpable. The appendix was medial to the ceacum, *not* adjacent to the omentum. It was moderately congested but there was no gross evidence of a suppurative process. The genitalia were atrophic. The entire digestive tract was examined and found free of masses, diverticles, perforating lesions, or other abnormalities. In the right upper quadrant of the abdomen there was an altered portion of the omentum measuring about 10 cm. across. This portion was greatly swollen, indurated, bright red, and gangrenous. It was loosely adherent to the anterior abdominal wall and to all adjacent structures. The gangrenous portion of the omentum was easily separated by blunt dissection. It was doubly clamped at its pedicle, cut, and removed, the pedicle was ligated. The appendix was removed in the usual manner, with inversion of the stump through

a purse string suture. The abdomen was closed tightly, without drainage.

Postoperative course: The patient left the operating room in good condition. Her convalescence was uneventful. Except for the second day when the temperature reached 99.4°F., the patient was afebrile. She was discharged on February 1st, six days after admission and surgical operation. She was seen last on October 26, 1954, at which time she felt well. There had been no further attacks of abdominal pain.

Pathologist's report: — Gross description of specimens: 1. Portion of omentum, 14 by 7 cms., and 3 cm. One half of the tissue has normal, fatty, yellow appearance. The other half is a bright red, thickened, and has the character of infarcted fatty tissue. On section, occluded blood vessels are seen. 2. Appendix, 4 cm. long, 0.4 cm. in diameter, embedded in fat. Its lumen is narrow but free. Its wall is thick. The serosa and mucosa are tan colored. Microscopic description: 1. First specimen consisted of partly normal fatty tissue and partly altered tissue. The latter portion is diffusely infiltrated with segmented leukocytes and there is albuminous exudate and diffuse, recent bleeding. The architecture of veins and arteries is normal but the veins are distended. All blood vessels are filled to capacity with blood. 2. The appendix has a partly destroyed mucosa, a narrow lumen which is filled with segmented cells, and a thick wall which is diffusely infiltrated with segmented leukocytes. Diagnosis: Infarcted omentum; acute suppurative appendicitis.

CASE 2

White male, 38 years old, admitted to the Milford Memorial Hospital, (#52170), November 11, 1954. Chief complaint was severe abdominal pain that started suddenly three days ago. The pain had persisted and been rather severe in intensity without any radiation. Most of his discomfort was noted when walking. During the last six hours he had had some nausea but no vomiting.

History: The family history was noncontributory. The past history revealed he had excellent health and had never had any previous attacks. He was overweight, weighing about 240 pounds.

Physical Examination: The positive findings noted on examination were definite tenderness, particularly on deep pressure, in the right lower quadrant of the abdomen, with no definite masses palpable. Urinalysis was negative. W.B.C. 10,050, with 59% segmented forms.

Treatment: He was operated on very shortly after admission. The abdomen was opened through a right McBurney incision and immediately there was noted a small amount of serous sanguineous fluid in the peritoneal cavity. At the lower end of the incision there was a small portion of omentum, about 3 cm. across, dark blue in color and adherent to the anterior peritoneum. This portion of the omentum had a small string-like pedicle that went up to the main part of the omentum. With slight difficulty, by blunt dissection, the discolored omentum was freed, and found to have been twisted several times on its pedicle, which was about 10 cm. in length and 1 cm. in width. The lower abdomen in the region of the ring was carefully palpated and inspected. There was no definite evidence of an inguinal or femoral hernia. The appendix was lying medial to the cecum, somewhat congested with the superficial vessels engorged. There was no evidence of any exudate or perforation. There was a small amount of gas in its proximal half, along with a small fecalith in the lumen. The terminal ileum was inspected, and there was no Meckel's diverticulum. There was no evidence of any mesenteric adenitis. No pathology was noted on palpation of the upper abdomen. The gall bladder could not be reached. The discolored portion of the omentum was quickly removed after clamping the pedicle at its base and ligating it. The appendix was removed in the usual manner and the stump was inverted through a purse string suture. The abdomen was closed tightly, without drainage.

Postoperative course: The patient left the operating room in good condition. Convalescence was uneventful. He was discharged November 20, 1954. He had been afebrile during the last six days. His highest temperature was 100, which was on the second post-operative day. He was contacted on May 10, 1955 and reported that he felt fine and had no further trouble or attacks of abdominal pain.

Pathologist's Report: — Gross description of specimens: 1. Appendix: 8 cm. long, diameter 0.7 cm. External surface shows prominent vascular markings. Appendix contains a moderate amount of bloody fluid. Mucosa is plicated. 2. Omentum: An elongated piece of lobulated fatty tissue. One end is gray-purple and hemorrhagic, measuring 3 x 2 x 1 cm. The rest measures 11 cm. long with a diameter of 1 cm. and is composed of lobulated glistening yellow fat. Microscopic description: 1. Appendix: Moderate amount of blood and polymorphonuclear leukocytes and fibrin in the lumen of the appendix. Mucosa is well preserved, with prominent germinal follicles. Musclar and serous coats are free of any inflammatory reaction. B. Omentum: 1. Focal areas of hemorrhagic infarction of the omentum. tense polymorphonuclear leukocytic reaction in the omental fat. Some of the fat is undergoing degeneration — typical of an infarction of the omentum, probably resulting from strangulation. Diagnosis: Acute catarrhal appendicitis. 2. Acute hemorrhagic infarction of the omentum.

DISCUSSION

The surgeon should be aware of torsion of the omentum as a disease entity. He should suspect this condition when studies of the gall bladder, appendix, and other abdominal and pelvic organs fail to explain the syndrome of severe acute abdominal distress, particularly when there is sero-sanguinous fluid in the peritoneal cavity.

SUMMARY

The incidence, etiology, pathology, clinical picture, and treatment of primary torsion of the omentum has been discussed. Two cases are reported in detail.

REFERENCES

1. Leitner, M. J., Jordan, C. G., Spenner, M. H., and Reese, E. C.: Torsion, Infarction, and Hemorrhage of the Omentum as a Cause of Acute Abdominal Distress, Ann. Surg. 135: 103-110 (Jan.) 1952.
2. Herdasha, R.: Idiopathic Spontaneous Segmental Infarction of the Greater Omentum. Ann. Surg. 137: 419-423 (Mar.) 1953.
3. Sterling, J. A., and Goldsmith, R.: Primary Torsion of Omentum. Rev. Gastroenterol. 18: 106-112 (Feb.) 1951.
4. Wiesman, I.: Torsion of the Omentum: Survey of Syndrome and Report of a Case. J. Internat. Col. Surg. 14: 734-735 (Dec.) 1950.
5. Nielsen, K.: 23 Cases of Omental Torsion, Acta Chirurg. Scand. F.6, 100: 545-566 (Dec.) 1950.
6. Hashemian, H. A.: Torsion of Great Omentum, Brit. Med. J. 1: 276-278 (Feb.) 1951.

AMA HOUSE OF DELEGATES

JUNE, 1955

from Synopsis by Secretary Lull

THE OSTEOPATHIC ISSUE

The Reference Committee on Medical Education and Hospitals submitted two reports after considering the recommendations of the Committee for the Study of Relations Between Osteopathy and Medicine. The minority report, which was adopted by the House of Delegates, said:

"One member of the Reference Committee was completely satisfied that an appreciable portion of current education in colleges of osteopathy definitely does constitute the teaching of 'cultist' healing, and is an index that the 'osteopathic concept' still persists in current osteopathic practice. Since he cannot with good conscience approve the recommendation that doctors of medicine teach in osteopathic colleges where 'cultism' is part of the curriculum, he respectfully makes the following recommendations to the House of Delegates:

"1) That the report of the Committee for the Study of Relations Between Osteopathy and Medicine be received and filed; and that the Committee be thanked for its diligent work, and be discontinued.

"2) That if and when the House of Delegates of the American Osteopathic Association, their official policy-making body, may voluntarily abandon the commonly so-called 'Osteopathic concept', with proper deletion of said 'osteopathic concept' from catalogs of their colleges; and may approach the Trustees of the American

Medical Association with a request for further discussion of the relations of Osteopathy and Medicine, then the said Trustees shall appoint another special committee for such discussion."

The majority report of the reference committee, which was rejected by the House, made the following recommendations:

"Your Reference Committee after a study of the report of the Committee for the Study of Relations Between Osteopathy and Medicine and the study of other evidence submitted is not completely satisfied that the current education in colleges of osteopathy is free of the teaching of 'cultist' healing.

"In view of the desire to elevate the standards of teaching in colleges of osteopathy, your Reference Committee recommends approval of the recommendation of the Committee that doctors of medicine may accept invitations to assist in osteopathic undergraduate and post-graduate medical educational programs in those states in which such participation is not contrary to the announced policy of the respective county and state medical associations. Such teaching services would be ethical.

"Your Reference Committee approves the recommendation of the Committee that the House of Delegates request state medical associations to assume the responsibility of determing the relationship of doctors of medicne, to doctors of osteopathy within their respective states or request their component county societies to do so.

"Your Reference Committee recommends that a committee be appointed at the discretion of the Board of Trustees to confer with representatives of the American Osteopathic Association concerning common or inter-professional problems on the national level."

CHANGE IN MEDICAL ETHICS

The Reference Committee on Miscellaneous Business dealt with ten resolutions concerning the dispensing of drugs and appliances by physicians. The following committee report was adopted by the House:

"A great many individuals appeared before your committee in the interest of several resolutions submitted to it requesting amendment to or deletion of Chapter I, Section 8 of the Principles of Medical Ethics, and the bulk of your committee's time was spent on this very important and complex matter.

"With reference to this problem, the following resolutions were considered: Nos. 7, 12, 16, 18, 22, 35, 39, 58, 62 and 73.

"Your committee recommends that no one of these resolutions be adopted as submitted but does recommend deletion of Section 8, Chapter I of the Principles of Medical Ethics which now reads:

'OWNERSHIP OF DRUGSTORES AND DISPENSING OF DRUGS AND APPLIANCES BY PHYSICIANS

'Sec. 8.—It is unethical for a physician to participate in the ownership of a drugstore in his medical practice area unless adequate drugstore facilities are otherwise unavailable. This inadequacy must be confirmed by his component medical society. The same principle applies to physicians who dispense drugs or appliances. In both instances, the practice is unethical if secrecy and coercion are employed or if financial interest is placed above the quality of medical care. On the other hand, sometimes it may be advisable and even necessary for physicians to provide certain appliances or remedies without profit which patients can not procure from other sources.'

"Your committee recommends that the following be substituted in lieu thereof:

'DISPENSING OF DRUGS AND APPLIANCES BY PHYSICIANS

'Sec. 8.—It is not unethical for a physician to prescribe or supply drugs, remedies, or appliances as long as there is no exploitation of the patient.'"

In reporting to the House the chairman of the Reference Committee explained that in the opinion of the Committee the Code of Ethics should be stated in broad principles rather than attempt to interpret principles in detail. In recommending the change in Section 8 the Committee emphasized that this section should be interpreted in line with Chapter I, Section 6, which reads: "The ethical physician,

engaged in the practice of medicine, limits the sources of his income received from professional activities to service rendered the patient . . . "

BOOK REVIEW

HEBREW MEDICAL JOURNAL

The Hebrew Journal, under the editorship of Moses Einhorn, M.D. of New York, has marked its twenty-seventh year of existence by the issue of two volumes in 1954. Written in Hebrew, with English summaries, the Journal has played an important part in the creation of a medical literature and terminology in the language of the Bible.

VOLUME 1, 1954, includes, besides the medical articles, a comprehensive study by Dr. Z. G. Raphaely of local problems of psychiatric treatment in Israel. In the section on "Historical Medicine", Dr. L. M. Herbert describes the life and work of the physician, Rabbi Jacob Zahalon, a remarkable personality in the world of Hebrew letters and Hebrew medical writings of the seventeenth century. His medical encyclopedia "The Treasure of Life," published in 1683, is truly an epitome of the medical knowledge of his day.

The section on "Old Hebrew Medical Manuscripts" contains an enlightening treatise on the "Book of Medical Experiences", ascribed to Rabbi Abraham Ibn Ezra (11th century) by J. Leibovitz, M.D. of Jerusalem. The systematic arrangement of the book into diseases and symptoms gives us a broad picture of the medical problems with which the author was faced, as well as an idea about medieval pathology in general. The section on "Talmud and Medicine" contains a very interesting article by Dr. Benjamin L. Gordon on "Medicine Among the Ancient Hebrews."

VOLUME 2, 1954 includes an exhaustive study on "Gerontology, with Special Reference to Israel" by Dr. Ch. Nitzany. The author points out that although in Israel the problem of gerontology seems to be less disturbing at present, owing to the fact that immigrants were mostly young people, the situation is, however, rapidly changing in face of diminished immigration.

The section on "Medicine and Religion" features an essay on "Sterilization and Eugenics in Jewish Law" by Rabbi I. Jakobovits, the Chief Rabbi of Ireland. The author discusses this controversial issue in the light of Jewish law, and also presents the views of early Christianity, the medieval church and the contemporary Roman Catholic Church on the subject.

This current issue is dedicated to the 750th anniversary of the death of Maimonides, the renowned Jewish medieval physician and philosopher. A series of articles in this issue deals with his life and outstanding contributions in the fields of medicine and philosophy. A biographical sketch on Maimonides is contributed by Dr. Moses Einhorn who cites some of Maimonides' memorable maxims of what makes a good doctor: "Besides the power to heal, a doctor must possess an independent mind; Medicine is necessary to man, not only when he is sick, but also when he is healthy; A doctor must be a whole man, observant, cautious, and attentive to each patient on the presumption that his case is individual and special."

Other articles on Maimonides deal with "The Influence of Religion and Philosophy upon Maimonides as Physician"; "Maimonides' Opposition to Occultism"; and "The Impact of Maimonides upon Medieval Writers in the Field of Medicine."

The editorial office of the Hebrew Medical Journal is at 983 Park Avenue, New York, N. Y.

MISCELLANEOUS

Institute at Delaware Hospital

One hundred representatives of hospitals from as far west as New Mexico gathered in Wilmington during the week of June 6th to 10th to attend an American Hospital Association Institute on Methods Improvement.

The purpose of the Institute was to familiarize the participants in tools and

(continued on page 140)

Editorial

DELAWARE STATE MEDICAL JOURNAL

Owned and published by the Medical Society of Delaware, a scientific non-profit corporation. Issued the fifteenth of each month under the supervision of the Committee on Publication.

W. EDWIN BIRD, M. D. .....Editor
621 Delaware Avenue

NORMAN L. CANNON, M. D. ....Assoc. Editor
1208 Delaware Avenue

M. A. TARUMIANZ, M. D. ..Assoc. & Man. Ed.
Farnhurst, Del.

Articles are accepted for publication on condition that they are contributed solely to this JOURNAL. Manuscripts must be typewritten, double spaced, with wide margins, and the original copy submitted. Photographs and drawing for illustrations must be carefully marked and show clearly what is intended.

Footnotes and bibliographies should conform to the style of the Quarterly Cumulative Index Medicus, Published by the American Medical Association, Chicago.

Changes in manuscript after an article has been set in type will be charged to the author. THE JOURNAL, pays only part of the cost of tables and illustrations. Unused manuscripts will not be returned unless return postage is forwarded. Reprints may be obtained at cost, provided request is made of the printers before publication.

The right is reserved to reject material submitted for publication. THE JOURNAL is not responsible for views expressed in any article signed by the author.

All advertisements are received subject to the approval of the Council on Pharmacy and Chemistry of the A. M. A. Advertising forms close the 25th of the preceding month.

Matter appearing in THE JOURNAL is covered by copyright. As a rule, no objection will be made to its reproduction in reputable medical journals, if proper credit is given.

Subscription price: $4.00 per annum, in advance. Single copies, 50 cents. Foreign countries: $5.00 per annum.

VOL. 27 JUNE, 1955 No. 6

In the last issue various legislative matters were discussed which have been under consideration by the General Assembly in Dover. At this writing it is important to note that Senate Bill No. 156, an amendment to the Medical Practice Act which consolidates the various medical examining boards, has been passed by both Houses. About this we feel very happy.

However, Senate Bill No. 46 was passed over the Governor's veto. We were opposed to this Bill and worked hard against it. Chiropractors are prohibited by law from doing surgery or administering drugs. It is frequently necessary to use surgery, drugs, or other special procedures to make correct diagnosis. Without accurate diagnosis, chiropractic or other cultist treatments are especially hazardous and dangerous for the patient. Therefore, it is contrary to the public interest to grant compensation to chiropractors under the Workmen's Compensation Act before the Industrial Accident Board. The medical profession stands to lose very little. The chiropractors will gain considerably. It is the patient, however, who is really the loser. Yet the chiropractor is not legally responsible, even if the patient should die through neglect or delay of proper treatment.

Our defeat in Dover in regard to this Bill is not in itself a catastrophe. Its importance lies in that it points up two gross defects in our present professional activities. One is that there is a crying need among physicians to be more cognizant of social and legislative matters. We owe it to our patients and ourselves to take more interest and responsibility in such matters. The other gross defect is the fact that our public relations are sadly in need of improvement. Some of the difficulty about Senate Bill No. 46 was the feeling of antagonism against all doctors on the part of a number of the legislators.

It seems imperative, therefore, that plans should be made promptly for a long-term educational and public relations program. Every member of the Society is requested to give this matter serious thought. It may be advisable for the Council to take action in this regard before next fall. Has the time arrived when we should employ a lay public relations representative? If so, there must be a Liaison Committee with whom the public relations representative may confer. Such a committee should be so constituted that its entire membership does not change from year to year. Continuity of policy is essential. Essential also is the willingness of each member of the Society to assist in whatever way he or she is best qualified. Furthermore, it must be realized that the extra expense involved must be born by each member in a form of an extra annual assessment.

LEWIS B. FLINN, M.D.
President

(Continued from page 138)

techniques that might be used to improve methods in hospitals and also reduce cost.

Dr. Robert P. Brecht, Professor of Industry, Wharton School of Finance, University of Pennsylvania, set the keynote of the session on Monday morning when he said "Anybody connected with or using a managerial process should have some knowledge of it." Dr. Brecht stressed the fact that physicians and surgeons admitting patients to hospitals could work much more effectively if they understood more thoroughly the managerial process.

Vencil F. Allman, Franklin J. Hoey, Thomas P. Roth, Charles E. Shaw, Jr. and Irving L. Lawton, loaned by the du Pont Company, conducted a course in "Work Simplification" as a part of the program.

R. R. Griffith, Director of the Delaware Hospital, and chairman of the Committee on Methods Improvement of the American Hospital Association, was host to the Institute.

Physicians-Pharmacists Dinner

The Second Annual Dinner given by the Delaware Pharmaceutical Society to their professional friends and associates, the physicians of Delaware, took place at the Brandywine Country Club on May 31, 1955. The guest register showed an attendance of fifty-three physicians and twenty-two pharmacists. After a cocktail hour a most delectable dinner was served.

After dinner came introduction of the guests of honor, officers of the Delaware Pharmaceutical Society, and members of their Committee on Professional Relations.

President Landis E. Wilson, acting as toastmaster introduced the first speaker, L. Earle Arnow, Ph.D., M.D., Vice-President and Director of Research of Sharp and Dohme. Dr. Arnow, choosing as his subject "Polio," brought forth some interesting facts, stating that it appeared to be an ancient affliction since evidence of death by polio appeared among the Egyptian mummies. Dr. Arnow further stated that approximately 80% of the people of the United States have polio before reaching the age of 21, but in a mild form, a comparatively small percentage suffering paralysis. Explaining the symptoms of the disease, following its course in the human body, he then took up the matter of the preparation of the Salk vaccine, stating that neither Dr. Salk or any of his associates had ever claimed that this vaccine would prevent polio since it would not, it's blessings arising from the fact that it would prevent paralysis from polio.

President Wilson then introduced Linwood F. Tice, B.S., M.S., Sc.D., Assistant Dean and Director of Pharmacy Department, Phila. College of Pharmacy and Science, member of Revision Committee, United States Pharmacopoea, Technical Editor, *Pharmacy International,* President of the American Association of Colleges of Pharmacy, and Honorary Member, Delaware Pharmaceutical Society.

Dr. Tice gave a comparative review of pharmacy as it was practiced at the turn of the century and as it is today, stating that the need for prescription compounding by the pharmacist in his individual prescription laboratory is becoming less and less and will further decrease as time goes on, due to the highly complicated process of manufacture of present day pharmaceuticals. He reviewed the painstaking and meticulous care necessary in working upon a medicinal before admitting it into the United States Pharmacopoea. He dwelt upon the changing nature of the retail pharmacist's business in dealing both with the laiety and the physician, stating that the number of new products released annually was so great as to render it impossible for the practicing physician to read all the literature necessary to thoroughly acquaint him with it's therapeutic value, dosages, etc., that the pharmacist should be in a position to give to the physician this information when called upon to do so.

Both speakers covered their subjects in an interesting and highly informative manner. It was a thoroughly enjoyable occasion, highly reminiscent of the famous dinners given by the "Q-S Club" some thirty years ago.

Particularly now...

Why is **KENT** the one fundamentally different filter cigarette?

The more brands of filter cigarettes that are introduced—the more innovations in filtering—the clearer becomes the difference in KENT. Consider for a moment why.

Only KENT, of all filter brands, goes to the extra expense to bring smokers the famous Micronite Filter. All others rely solely on cotton, paper or some form of cellulose.

Indeed, the material in KENT's Micronite Filter is the choice in *many* places where filter requirements are most exacting.

With such filtering efficiency, it is understandable why KENT with the Micronite Filter takes out even microscopic particles —why KENT is *proved* effective in impartial scientific test after test.

Taste will tell the rest of the story. For KENT's flavor is not only light and mild. It stays fresh-tasting, cigarette after cigarette.

May we suggest you evaluate KENT for yourself, doctor? We firmly believe that, with the first carton, you will reach the same conclusion. As always, there is a difference in KENT. And now more than ever before.

KENT
with exclusive
MICRONITE
FILTER

"KENT" AND "MICRONITE" ARE REGISTERED TRADEMARKS OF P. LORILLARD COMPANY

STRESS FORTIFY

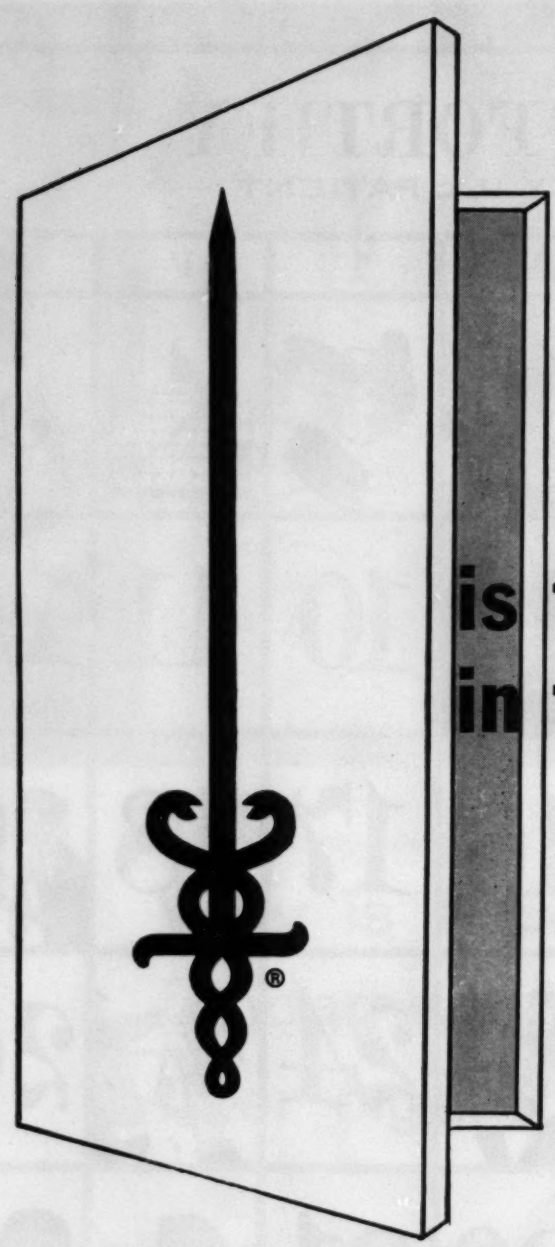
THE ACUTELY ILL PATIENT

Prompt institution of therapy with such well-tolerated and effective agents as Terramycin,®* Tetracyn®† or penicillin rapidly controls infections due to susceptible organisms. Other measures contributing to shorter illness and faster recovery include stress fortification of the patient with therapeutic amounts of the B-complex, C and K vitamins, recommended by the National Research Council for routine use during the stress of severe infection or injury.

*BRAND OF OXYTETRACYCLINE
†BRAND OF TETRACYCLINE

Pfizer

PFIZER LABORATORIES, Brooklyn 6, N. Y.
Division, Chas. Pfizer & Co., Inc.



is there a doctor in the house?

There certainly is in our house.

Where there is activity against cancer, there is the physician. It is no secret to any of you that the doctor contributes long hours to the needy cancer patient in clinics, in hospitals, in homes. It is your office of which we boast when we say "every doctor's office a cancer detection center."

Less well known is the fact that hundreds of your colleagues, as directors of the American Cancer Society nationally, in Divisions, and with Units, bring the best medical thought to our attack on cancer by education, by research, and by service to patients. The entire professional education program is planned for doctors by doctors.

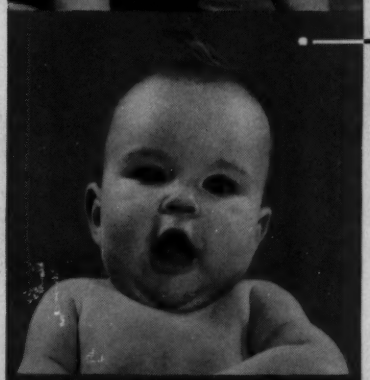
The occasion for this brief salute is April, the Cancer Control Month. This year, 1955, marks the tenth anniversary of the reorganization of the American Cancer Society and the launching of the post-war attack on cancer. Much has been achieved—far more remains to be done.

We are grateful for your help in the past—and we rely on your continued support. We count heavily on the doctor in our house.

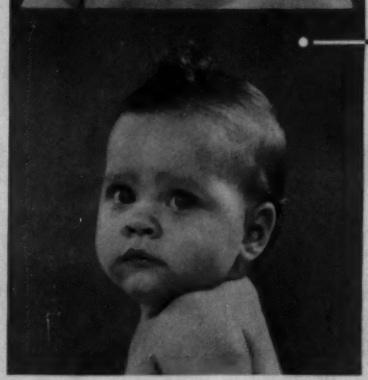
American Cancer Society

Why so many physicians SPECIFY PABLUM CEREALS

TOMMY started on Pablum Rice Cereal at the age of 2 months. He likes its smooth texture (all Pablum Cereals are smooth). Pablum Cereals give him plenty of iron—½ oz. supplies 4.2 mg.—to help prevent iron deficiency anemia.

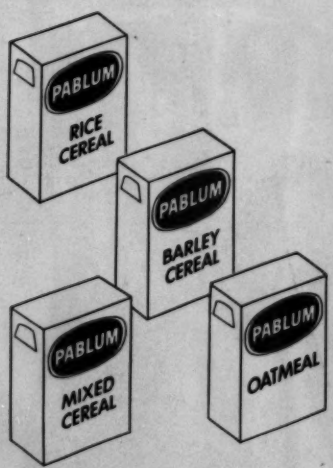


MARY LOU likes Pablum Oatmeal. Since she has been eating Pablum Cereals her growing appetite is satisfied longer.



BARBARA—like other children—enjoys *all* four Pablum® Cereals. Each variety tempts her awakening taste buds. Pablum Cereals are scientifically packaged to insure freshness. The 'Handi-Pour' spout is an extra convenience for busy mothers.

Pablum Rice Cereal
Pablum Barley Cereal
Pablum Oatmeal
Pablum Mixed Cereal



Pablum Products

DIVISION OF MEAD JOHNSON & COMPANY
EVANSVILLE, INDIANA, U.S.A.